

The economic mystery of population growth

(Economics)



BUSINESS WEEK

A MCGRAW-HILL PUBLICATION

TWENTY-FIVE CENTS

JULY 20, 1957

The construction
man - what makes
him different
(Management)



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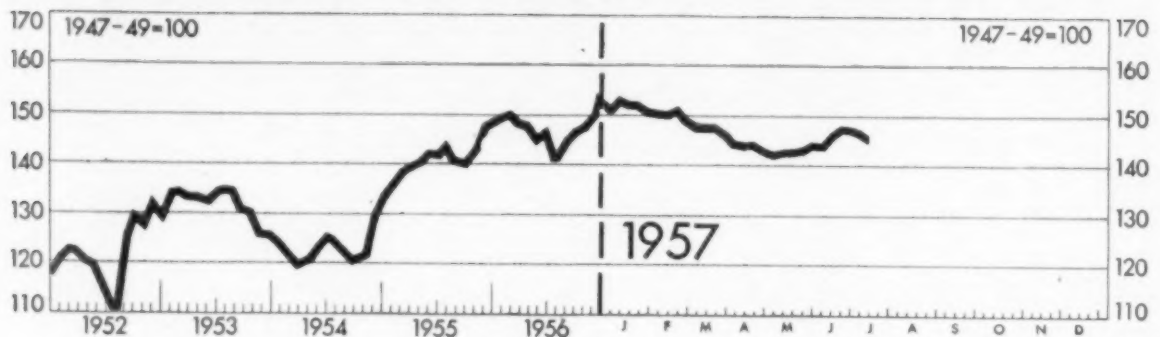
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FIGURES OF THE WEEK



BUSINESS WEEK INDEX (chart)

1946 Average	Year Ago	Month Ago	Week Ago	5 Latest Week
91.6	142.7	146.7	†147.0	*146.3

PRODUCTION

Steel ingot (thous. of tons).....	1,281	377	2,181	†2,015	2,073
Automobiles and trucks.....	62,880	146,173	156,224	†195,615	144,522
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.).....	\$17,083	\$80,628	\$66,528	\$68,638	\$69,344
Electric power (millions of kilowatt-hours).....	4,238	10,878	11,958	11,056	11,964
Crude oil and condensate (daily av., thous. of bbls.).....	4,751	7,084	7,294	6,952	6,882
Bituminous coal (daily av., thous. of tons).....	1,745	1,881	1,670	†2,102	1,875
Paperboard (tons).....	167,269	202,972	287,444	158,025	153,861

TRADE

Carloadings: miscellaneous and L.C.I. (daily av., thous. of cars).....	82	72	67	69	68
Carloadings: all others (daily av., thous. of cars).....	53	52	55	53	54
Department store sales index (1947-49 = 100, not seasonally adjusted).....	90	90	125	107	94
Business failures (Dun & Bradstreet, number).....	22	251	265	190	256

PRICES

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100).....	311.9	411.7	426.0	426.8	428.6
Industrial raw materials, daily index (BLS, 1947-49 = 100).....	††73.2	94.3	93.4	92.9	92.7
Foodstuffs, daily index (BLS, 1947-49 = 100).....	††75.4	80.9	84.1	86.3	86.6
Print cloth (spot and nearby, yd.).....	17.5¢	18.6¢	17.9¢	17.8¢	17.9¢
Finished steel, index (BLS, 1947-49 = 100).....	††76.4	158.3	174.3	180.3	181.3
Scrap steel composite (Iron Age, ton).....	\$20.27	\$46.50	\$56.17	\$54.50	\$54.17
Copper (electrolytic, delivered price, E & MJ, lb.).....	14.045¢	39.750¢	31.155¢	29.188¢	29.185¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$1.97	\$2.06	\$2.24	\$2.15	\$2.14
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	**30.56¢	35.72¢	33.97¢	33.99¢	34.00¢
Wool tops (Boston, lb.).....	\$1.51	\$1.79	\$2.22	\$2.22	\$2.22

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	17.08	49.01	48.06	48.84	48.91
Medium grade corporate bond yield (Baa issues, Moody's).....	3.05%	3.79%	4.64%	4.72%	4.72%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	¾-1%	3¼-3¾%	3¾%	3¾%	3¾%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	††45,820	55,346	56,448	†54,307	54,750
Total loans and investments, reporting member banks.....	††71,916	85,132	86,754	†88,204	88,581
Commercial and agricultural loans, reporting member banks.....	††9,299	28,734	31,519	†32,310	32,186
U. S. gov't guaranteed obligations held, reporting member banks.....	††49,879	26,349	25,560	†26,310	26,020
Total federal reserve credit outstanding.....	23,888	25,903	24,988	25,384	25,792

MONTHLY FIGURES OF THE WEEK

	1946 Average	Year Ago	Month Ago	Latest Month
Housing starts (in thousands).....	55.9	107.4	102.0	97.0
Employment (in millions).....	55.2	66.2	65.2	66.5
Unemployment (in millions).....	2.3	3.2	2.7	3.3
Average weekly earnings in manufacturing.....	\$43.82	\$79.19	\$81.78	\$82.59
Retail sales (seasonally adjusted, in millions).....	\$8.541	\$15,746	\$16,258	\$16,367
Bank debits (in millions).....	††\$85,577	\$186,540	\$197,181	\$193,303
Wholesale prices (U. S. Dept of Labor BLS, 1947-49 = 100).....	78.7	114.2	117.1	117.4

* Preliminary, week ended July 13, 1957.

† Revised.

†† Estimate.

** Ten designated markets, middling † in.

§ Date for 'Latest Week' on each series on request.

THE PICTURES—Bell Telephone Laboratories—66; Grant Compton—cover, 32, 51, 96, 97, 166; Engineering News-Record—167, 170, 172, 176; Martin Harris—132, 133; High Voltage Engineering Corp.—58 (bot. it.); Herb Krafovil—58 (except bot. it.), 59; Archie Lieberman—30, 31; Bob Phillips—33; Gene Pyle—127; Bob Towers—168; W. W.—28, 29.

B.F. Goodrich report:



Danger—ammonia

B. F. Goodrich improvements in rubber brought extra savings

Problem: Storing a powerful chemical, called ammonium nitrate, used to be a terrific problem. Steel tanks were used but the corrosive liquid ate holes through the metal. Then workmen couldn't go near the tank without breathing dangerous fumes. Aluminum tanks could do the job, but they're too expensive. A fertilizer company asked B.F. Goodrich to help them solve this problem.

What was done: B.F. Goodrich engineers recommended a protective rubber lining. They used a combination lining of hard rubber sandwiched between soft rubber, called Triflex, to stand

the corrosive chemical.

Savings: The B.F. Goodrich rubber lined tank has eliminated a need for the more expensive aluminum tank. After four years of service, there have been no leaks, no repairs on the tank in the picture. And it is expected to last many times the three year life of unlined steel tanks.

Extra benefits: B.F. Goodrich specializes in rubber equipment to handle acids and other corrosive chemicals. Today you'll find B.F. Goodrich rubber lined tanks, pipes and valves in the most modern plants. More important, you'll find rubber lining in some places

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BUSINESS WEEK • JULY 20, 1957 • NUMBER 1455

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READERS REPORT

A Logical Inflation

Dear Sir:

It is very logical that we have inflation in the U. S. We have been giving away billions of dollars to foreign nations. Isn't it reasonable for people to assume that anything given away so freely can't be very valuable?

ED BATZNER

MILWAUKEE, WIS.

Cornstalk Curtain

Dear Sir:

Businessmen vs. Eisenhower [BW—May 18 '57, p40] rustles like the cornstalk curtain. Such noises have been there all the while; but, except for McCarthy, no one has given them much air time.

As we have only two choices at the polls, can you visualize the Jenners or Dirksens going Democratic in protest against an Eisenhower Republican? On the other hand, with Democratic and independent registrations holding a majority, can you see even Knowland swinging enough of them to win? Even if elected, such a man would be likely to produce a generation of revulsion toward "Democratism" like that which followed Hoover.

Those who belittle Ike's attainment should be reminded that one must get elected to produce even that much.

P. S. BARROWS


DEL MAR, CALIF.

One of the Sparks

Dear Sir:

I was very much interested to read your article Produce Mart Gets Elbow Room [BW—Jun. 15 '57, p61]. It is an excellent review of Philadelphia's progress in obtaining an adequate and much needed wholesale produce market.

However, it neglects to mention one of the "instigators" credited with providing the spark which finally resolved the controversy on Dock Street and furnished the Greater Philadelphia Movement and the Redevelopment Authority with the vehicle and blueprint for action upon which they have proceeded in establishing the new center. I refer particularly to the report and recommendations to the Dock Street Committee of the Greater Philadelphia-South Jersey Council and the Philadelphia Redevelopment Authority made



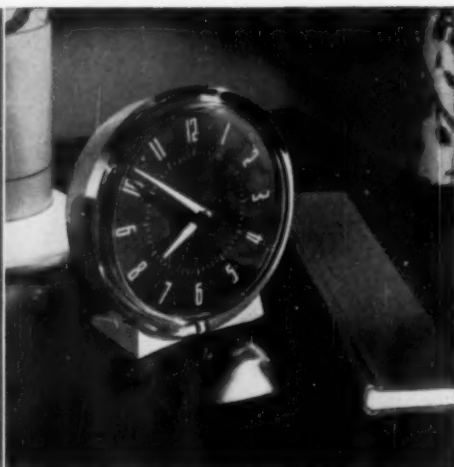
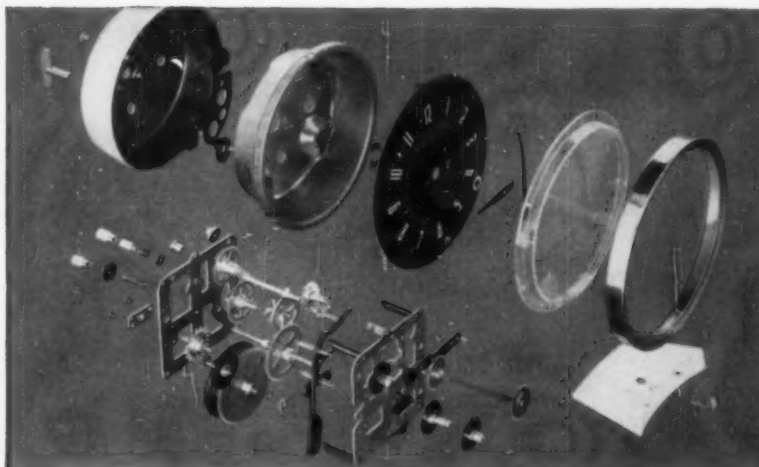
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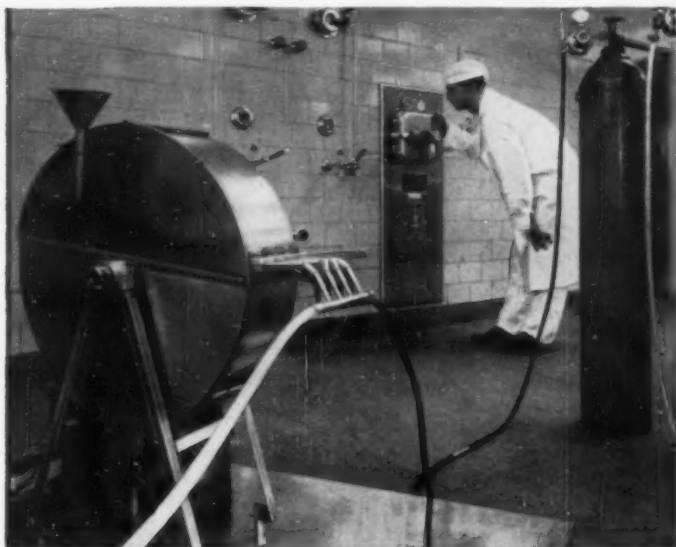
The big picture shows the Socony Mobil Building at 42nd and Lexington in New York City. It's the largest metal-walled office building in the world, and is completely sheathed with Stainless Steel panels. They used Stainless Steel because of its lasting beauty, durability, corrosion resistance, and low maintenance. The small picture below shows an all-steel prefabricated school. The steel skeleton is strong and safe, and the porcelain-enameled steel wall panels are colorful and easy to care for.



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Now—A Steel Garbage Can In Color! Almost all garbage cans are made from steel, galvanized with a thick coating of corrosion-resistant zinc. Now, one enterprising manufacturer has found a way actually to *print* color patterns on galvanized steel. Result: a beautifully textured can available in several pleasing colors which blend with shrubbery or buildings. Ask to see one at your favorite store.

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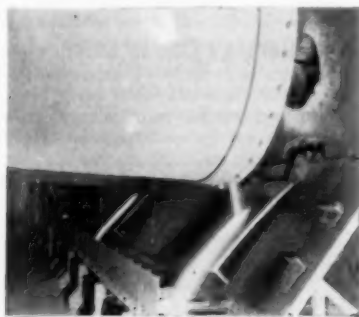
Watch the **United States Steel Hour** on TV every other Wednesday (10 p.m. Eastern time).

7-895



1 These Imperial executives put color in your life: Alfred E. Van Wirt (left), vice president and technical director; Arthur F. Brown, president. "High-fashion wallpaper and uniform pigment colors require unceasing research and painstaking craftsmanship to

produce," Mr. Brown states. "They also call for the highest quality raw materials. We know from experience that Wyandotte meets our exacting standards. And they're always ready with helpful technical assistance, should we need it."



2 Imperial produces chromate pigments of many hues by roasting chromite ore and Wyandotte Soda Ash in rotary kilns. An economical alkali, Wyandotte Soda Ash is indispensable to such industries as glass, paper, chemicals, and textiles.



3 Pull-down test gives quality check on pigment, paint or ink formulas; determines uniformity of shade, strength, gloss. Formulations for paint and ink often call for Wyandotte PURECAL*—to improve brightness, hiding power; eliminate settling,



4 Technician checks equipment that subjects color swatches to standardized ultraviolet light, thus evaluating the color fastness of pigments. Wyandotte products, too, pass rigorous tests to assure customers of continuous high quality.



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"But, like any major trend, endless research is required to put color in your life. It's not enough that we alone should be research- and new-product-minded; we expect it of all our chemical suppliers, like Wyandotte. This makes for progress!"

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6 Every room in your house, from bathroom to basement, can be pretty and practical by using color and design creatively. Creativeness, at work in Wyandotte research labs, results in products that benefit both home and industry.



7 Technical help from Wyandotte may take the form of a conference, an assist from our research lab, or data on new uses for established chemicals; can spark new ideas, save duplication of research. Got a chemical problem? Call on us!



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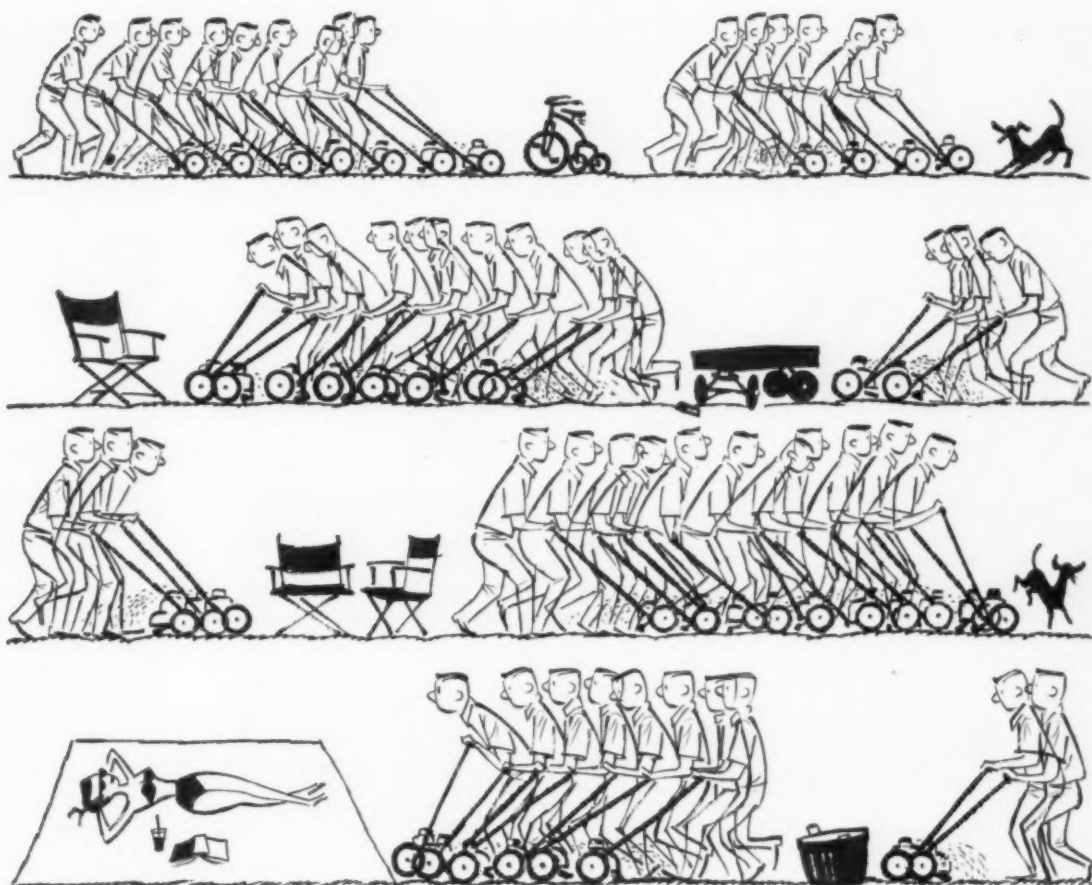
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N-A-X FINEGRAIN STEEL COMBINES STRENGTH WITH FORMABILITY

Among the many economical advantages of N-A-X FINEGRAIN—a low-alloy, high-strength steel with widely diversified applications in modern metals design—is its combination of great strength with excellent formability. Even at the higher strength levels (50% greater than mild carbon steel) N-A-X FINEGRAIN can be cold formed and drawn into difficult stampings and cold formed shapes.

Take these qualities and add the ability of N-A-X FINEGRAIN to be readily polished to a high luster at minimum cost, and when plated, you have a steel ideally suited for such applications as bumpers, bumper guards, and many others where strength and toughness with good finish is important.

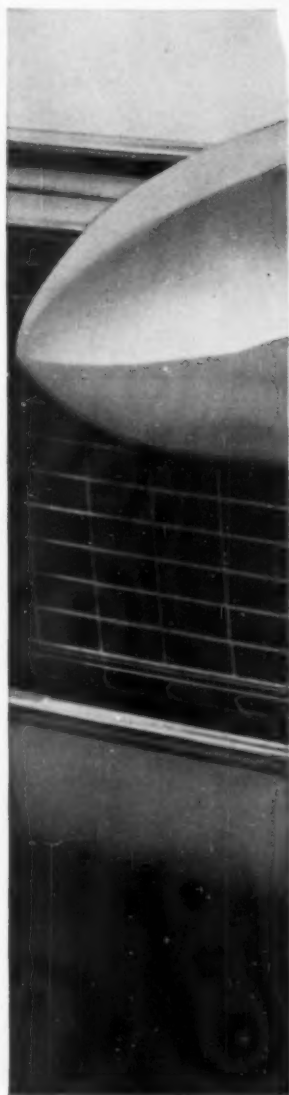
Engineers and designers like N-A-X FINE-

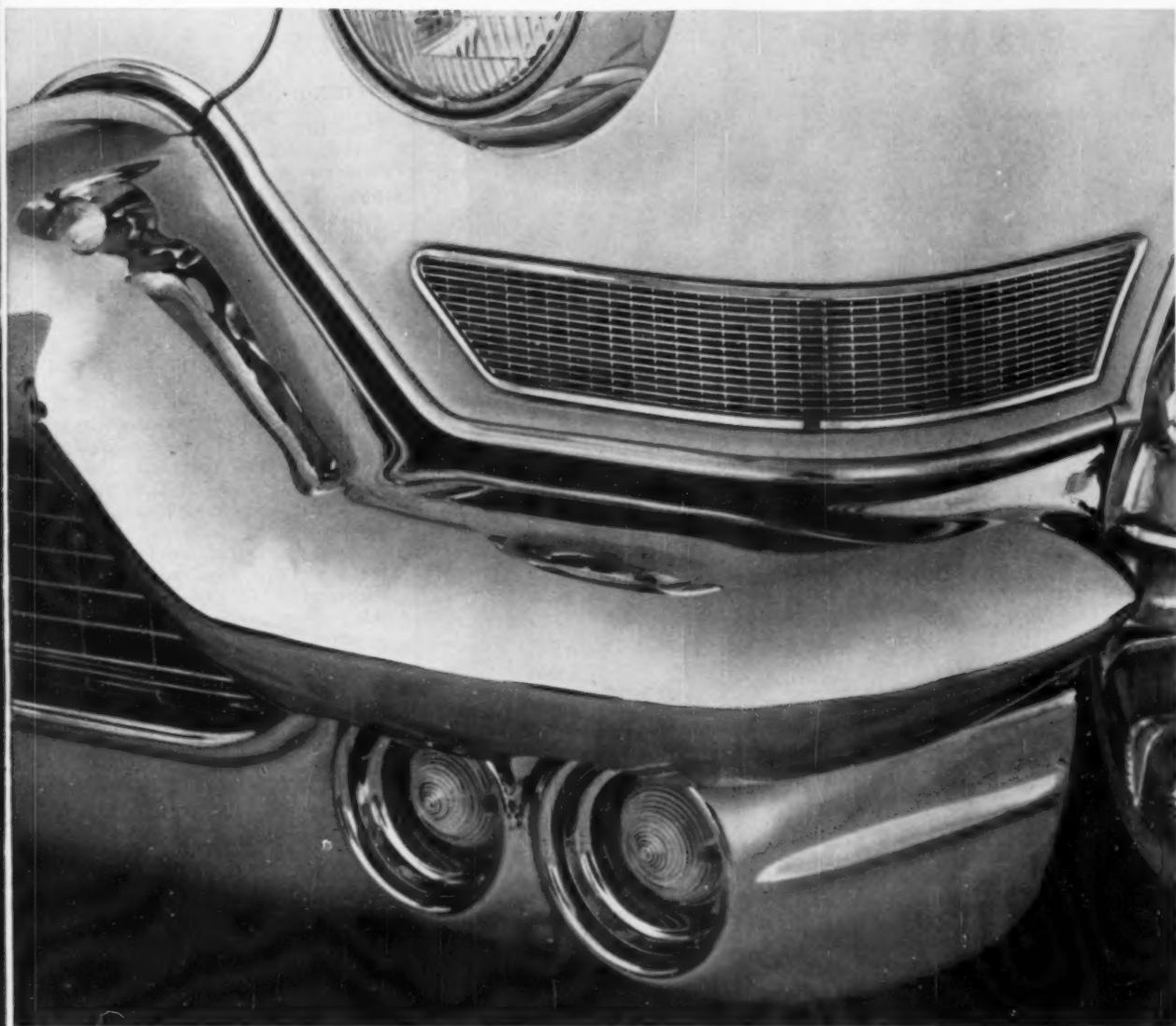
GRAIN especially because its physical properties are inherent in the “as rolled” condition. No subsequent treatment is needed to insure its characteristics.

Cheek these other important advantages: N-A-X FINEGRAIN steel, compared with carbon steel, is 50% stronger • has high fatigue life with great toughness • is stable against aging • has greater resistance to wear and abrasion • is readily welded by any process • offers greater paint adhesion.

NOTE: Where greater resistance to atmospheric corrosion is an important factor, our N-A-X HIGH-TENSILE steel is recommended.

For whatever you fabricate, from bumpers to bulldozers, with N-A-X HIGH-STRENGTH steels you can design longer life, or less weight, and economy into your products. Let us show you how.





One of many applications where N-A-X FINEGRAIN'S strength with formability saves production money.



N-A-X Alloy Division, Dept. BW-4
GREAT LAKES STEEL CORPORATION
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N-A-X Alloy Div., Dept. BW-4
Great Lakes Steel Corp., Detroit 29, Mich.

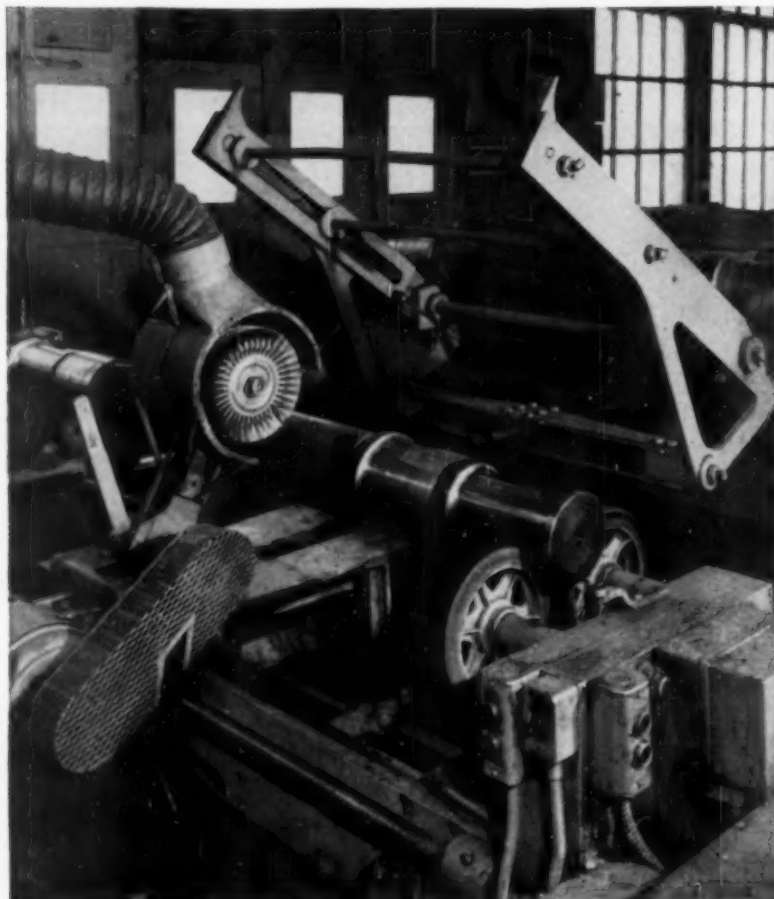
- ☐ Please send me technical data on N-A-X FINEGRAIN steel.
☐ Please have your representative contact me.

Name _____ Title _____

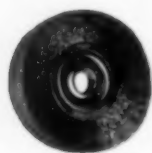
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Maintenance Brushes

To obtain rapid, thorough cleaning of car axles prior to magnafluxing, the maintenance shop of a leading railroad is using Osborn power brushing methods.

In this operation, a counterbalanced mechanism is tipped to roll the axle into position. As the axle revolves on rubber rollers located at each end of the machine, two sets of rotating Osborn Disc-Center® brushes mounted on a traveling head remove all rust, dirt and scale. Brushing time: 1 minute, 15 seconds.

Osborn offers a complete line of top quality, long lasting power, paint and maintenance brushes. Write for information on the full line in Catalog 210-C. *The Osborn Manufacturing Company, Dept. A-101, Cleveland 14, Ohio.*

Osborn Brushes 



BRUSHING METHODS • POWER, PAINT AND MAINTENANCE BRUSHES
BRUSHING MACHINES • FOUNDRY PRODUCTION MACHINERY

by a panel of the Urban Land Institute in January, 1951. . . .

MAX S. WEHRLY

EXECUTIVE DIRECTOR

URBAN LAND INSTITUTE

WASHINGTON, D. C.

Wrong State

Dear Sir:

Enjoyed your How to Drown a Business Worry [BW—Jun.15'57, p44]. I think if you will check you will find the part of the San Juan River that is used for boating is in Utah—not Colorado.

LLOYD H. REDD

OMAHA, NEB.

The Government Profits

Dear Sir:

Referring to The Steel Price Rise [BW—Jul.6'57,p30], the good congressmen who have been so free with their criticism of U. S. Steel Corp. for "irresponsible pricing and contributing to inflation," seem to have overlooked the fact that the Steel Corp. acted primarily in the interests of the government in this matter of increasing prices. In short, taxwise, the government is netting at least 65% of this price increase, or \$3.90, whereas the stockholders . . . will run a poor second . . . because the most they can hope to net is about \$2.10.

I am referring to the fact that if the price of steel had not been increased, the profits of the Steel Corp. would have been reduced \$6 per ton and thus the government stood to lose 52% directly in corporate profit taxes and upwards of 30% of the balance in income taxes assuming that dividends to the stockholders would have been reduced in proportion to their portion of the loss in gross profits. Moreover, it should not be overlooked that the government is also participating income-taxwise to the tune of an average of at least 25% in the very wage increase that precipitated the price increase in the first place . . . Therefore, I suggest that, rather than wasting their time criticising the Steel Corp. . . . our congressmen would do better to focus their attention on the fundamental cause of these price increases, namely, taxes or, in particular, those taxes that contribute directly or indirectly to prices . . .

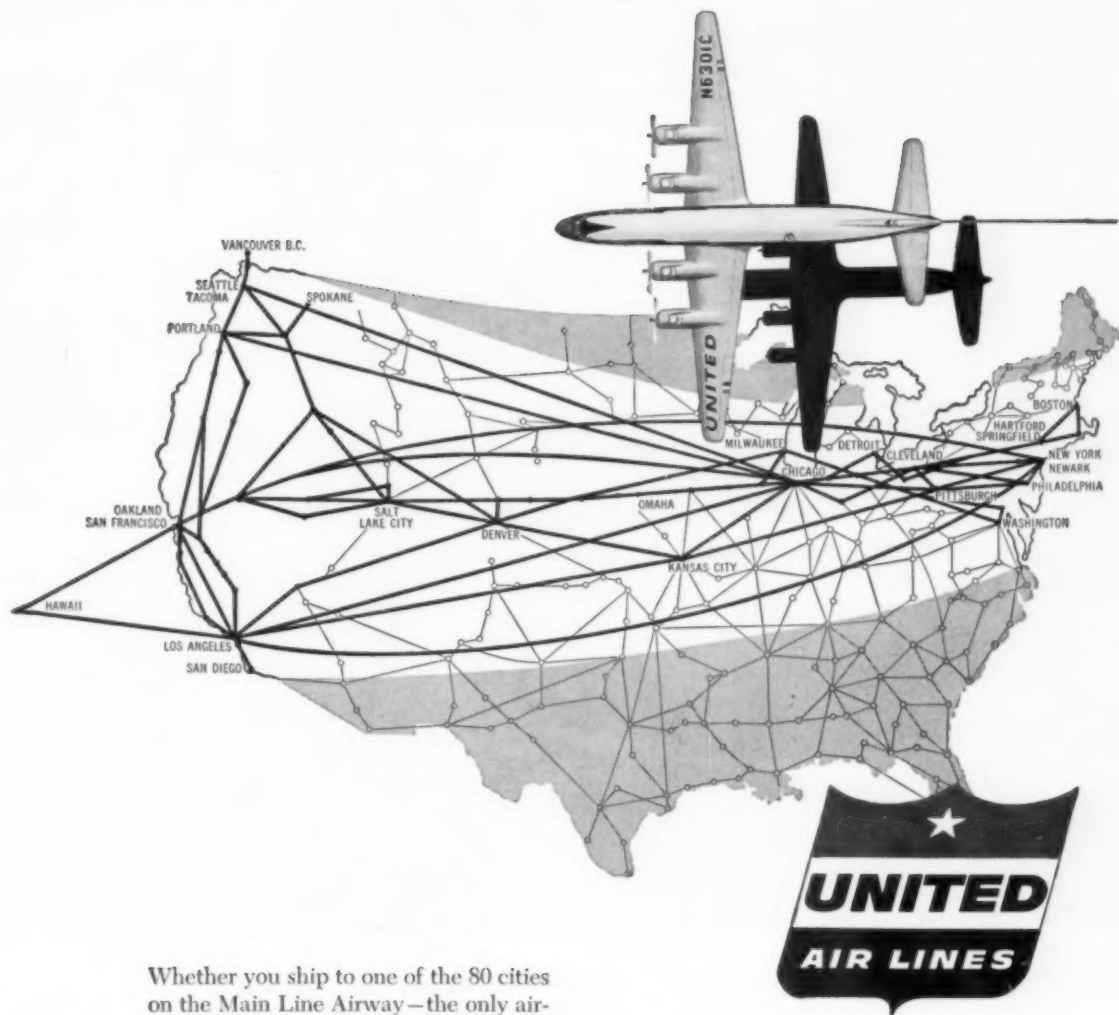
GEORGE B. BAILEY

EXECUTIVE DIRECTOR

JOHN B. PIERCE FOUNDATION

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Whenever you ship, wherever you ship, call United first!

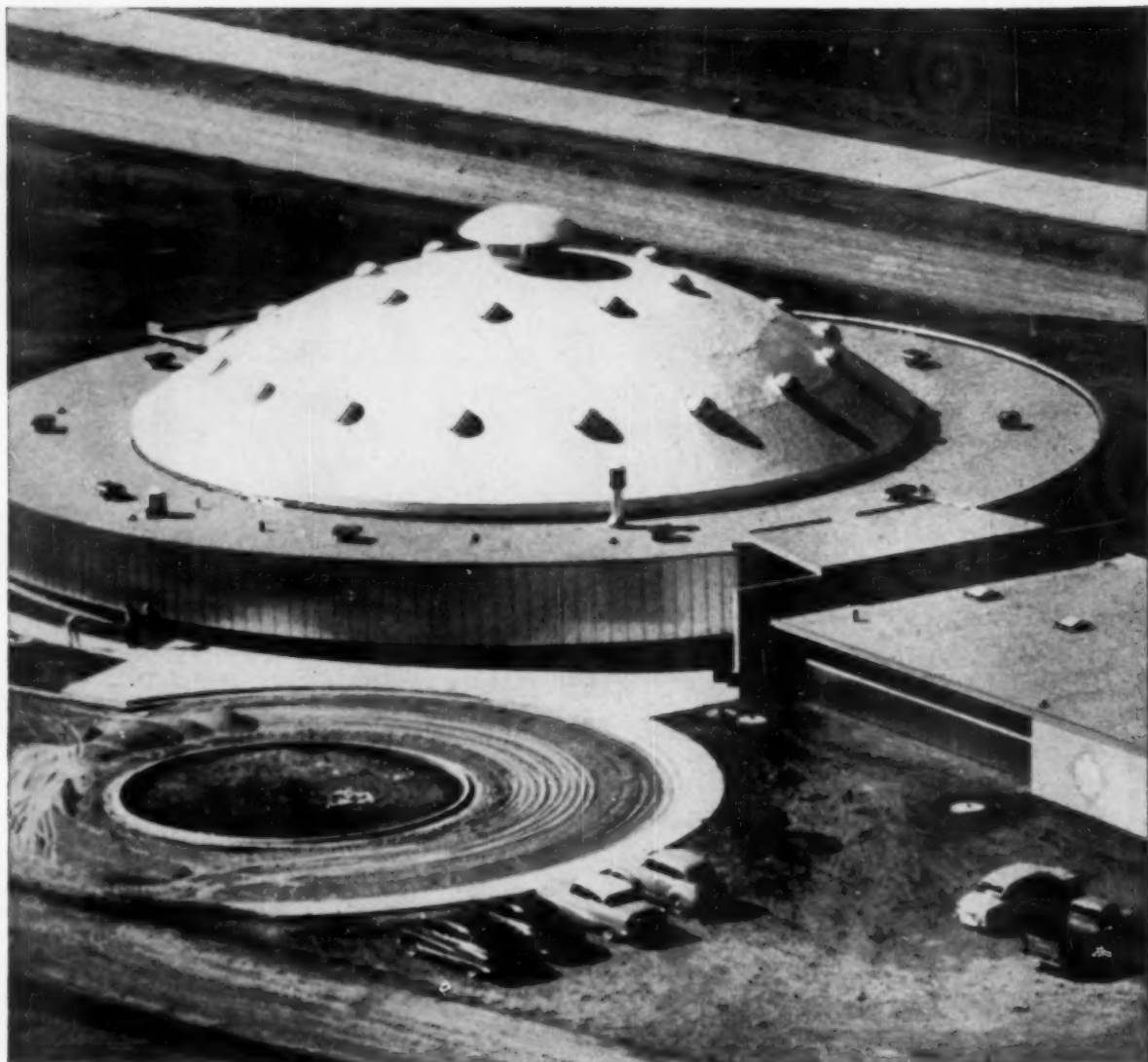
Examples of United's low Air Freight rates

	per 100 pounds*
CHICAGO to CLEVELAND	\$4.78
NEW YORK to DETROIT	\$5.90
DENVER to OMAHA	\$6.42
SEATTLE to LOS ANGELES	\$9.80
PHILADELPHIA to PORTLAND	\$24.15
SAN FRANCISCO to BOSTON	\$27.00

*These are the rates for many commodities. They are often lower for larger shipments. Rates shown are for information only, are subject to change, and do not include the 3% federal tax on domestic shipments.

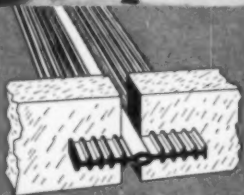
For service, information, or free Air Freight booklet, call the nearest United Air Lines Representative or write Cargo Sales Division, United Air Lines, 36 South Wabash Avenue, Chicago 3, Illinois.

SHIP FAST... SHIP SURE... SHIP UNITED



This huge concrete dome covers the new National Guard Armory at Lawton, Okla. To protect the porous masonry against weather, wind and abrasion, a white coating based on **BAKELITE Brand Vinyl Resins** was sprayed over the entire surface of the dome. Applied at a pressure of 100 pounds per sq. in., the coating penetrates into the pores of the 4-inch thick concrete. Additional coats build up a smooth surface that reflects the sun's rays and helps to maintain cool underroof temperatures. It's a tough, easily applied coating that resists weather extremes and hard usage...and equally applicable on all other types of masonry construction.

At International Airport (Idlewild), N. Y. C., the new control tower, administration and passenger building have a new kind of expansion joint, or waterstop, trade-marked "**Durajoint**." It's a ridged strip extruded from **BAKELITE** elastomeric Vinyl Plastic, used between sections of concrete floors or walls. The diagram shows how the strips are cast into the slabs of concrete. They absorb vibration, and allow for expansion and contraction of the masonry sections, and prevent water from seeping through the joints. The tough **BAKELITE** Vinyl Plastic offers excellent resistance to weathering and fungus growth, and is unaffected by chlorine, sea water, or by the acids and alkalis present in concrete.



BAKELITE Plastics make building news with

Faster and better construction methods



A plastic blanket helps build a highway! Big rolls of film made of BAKELITE Brand Polyethylene are used as a "curing blanket" for newly-laid concrete on a Minnesota trunk highway. The blanket holds the moisture in the concrete and (tinted white) reflects sunlight and cuts down heat absorption. This allows the concrete to set properly. The film is easy to lay. Twenty pounds of film covers 1000 feet of highway. It resists chemicals, and unlike most other blanket materials, can be re-used . . . a big factor in its economy.



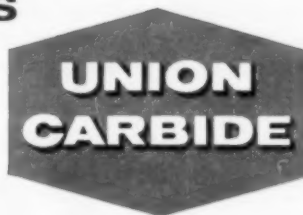
Excluding moisture after a concrete floor has been laid is as important as retaining moisture while the concrete sets. Film made of BAKELITE Brand Polyethylene does both jobs. Here, it has been laid on the foundation base and the concrete floor poured on top. It keeps the moisture in the concrete from seeping into the ground, and when the building is completed will keep moisture from coming in through the foundation. (It's also laid on top during the "curing" process in the same way as described above). Polyethylene film also serves as temporary glazing, as moisture and dust barriers in floors and walls and, of course, for packaging products of just about every kind.

Modern concrete construction puts the unique properties of plastics to work

Just as there are many different ways in which plastics help make stronger, longer-lasting, better looking, more economical construction today, there are many different plastics to choose from at Bakelite Company. There are vinyls, epoxies, polyethylenes, phenolics, polyesters, styrenes, and impact styrenes. Each one provides properties and characteristics ideally suited to the many jobs it does in every kind of business and industry. And they all add up to the greatest variety of plastics at one source, backed by the broadest experience and largest facilities in the industry.

DID YOU KNOW: Plywood panels used for concrete forms have a coating based on BAKELITE Brand Phenolic Resins, sealing the porous wood against moisture, and filling the grain so that masonry has a smoother surface.

BAKELITE
BRAND
PLASTICS



BAKELITE COMPANY, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y.

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*cuts lube costs***

Here are three practical advantages to buying all your industrial lubricants under a single Texaco Sales Agreement, no matter where your plants are located:

The economy of quantity buying is one . . . simplification of inventory is another. And using one brand—one quality nationwide is another; for it makes control much simpler and uniform performance more certain.

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TEXACO
INDUSTRIAL LUBRICANTS



BUSINESS OUTLOOK

BUSINESS WEEK

JULY 20, 1957



Small flaws continue to mar what should be a good business picture.

Looked at broadly, the salient facts are that **production and employment** are the highest they have ever been at this time of year.

Yet their gains over a year ago aren't large enough to be impressive. And **confidence** seems to be waning ever so slightly.

Hesitancy should hardly be surprising considering the **tightness of credit** (page 26). Yet the very tightness of credit (interest rates began rising again this week) unquestionably is one of the things sapping confidence.

Maybe the **stock market's** action (page 25) will be the tipoff.

Wall Street mirrors the financial frame of mind. Even though its reputation as a forecaster is somewhat tarnished, a **market break-through** into new high ground could be an immense encouragement.

By the same token, a failure to penetrate the 15-month-old top might upset business. That's why the price fadeaway late in Tuesday's trading—after days on the verge of a new high—was a distinct disappointment.

Much of the stock market's recent rise has been fed by renewed fears of inflation. But, inflation or no, any old-timer will tell you that it takes earnings and dividends to make stock markets.

And some analysts are turning less optimistic about earnings.

—•—

Production in June held to the May level—143 on the Federal Reserve Board's index. That was 2 points better than a year ago.

Weakness in lines such as aircraft has been offset by higher production of consumers' durable goods—notably autos. Electrical machinery, too, bounced from its May level to go ahead of last year once again.

There is evidence, nevertheless, that factories may be making more than they are shipping.

The clues are these: Factory output is above a year ago. Yet shipments, after allowance for price increases, show little or no gain.

This helps explain why **inventories have been hard to pare**: Manufacturers have been reducing their purchases of materials and parts for months; but stocks of **in-process and finished work** have gone on rising.

Any factory overstock of finished goods doubtless will **vanish in a twinkling** if autumn demand picks up as expected. It should be remembered that **retail stocks** are relatively low—below year-ago levels if the dollar totals are adjusted to allow for price increases.

And **retail sales**, even after price adjustment, are ahead of last year.

—•—

Employment of 66½-million in June set a new high for the month—but only by a fraction of a percentage point.

This can be taken as an indication of business sluggishness. Or, if you want to put a good face on it, you can figure it took a good gain in non-agricultural employment to offset a farm drop of 400,000.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
JULY 20, 1957

Be that as it may, **unemployment** was about 200,000 higher than last year (though it still isn't large at a total of 3.3-million).

Most optimistic feature of employment is this: Eliminate farm workers, odd-jobbers, and the self-employed, and you come up with 52.7-million non-agricultural jobs. That's about 1-million above a year ago.

Nevertheless, this masks an **unsatisfactory trend in factory hiring.**

The number of people employed in manufacturing apparently averaged a shade lower in the second quarter than it did in 1956. Plants turning out softgoods have provided fewer jobs ever since last October.

Factories afforded workers a **slightly longer workweek** in June than in May (39.9 hours against 39.7), but still ran a bit below 1956.

Aided by the upturn in hours worked, **average weekly wage earnings** rose to \$82.59. That was about 80¢ better than in May, while the year-to-year gain was more than \$3 a week, thanks entirely to higher hourly rates.

New estimates indicate that **the economy, over-all, is even larger than we have been thinking.** The Dept. of Commerce now puts the value of all goods and services produced last year at \$414.7-billion, more than \$2-billion higher than previously reported.

Similarly, last year's final quarter's gross national product is moved up to an annual rate of \$426-billion (also a revision of more than \$2-billion). And the raising of these benchmarks automatically puts this year proportionately higher (with a first quarter rate of \$429.1-billion).

About half of last year's 6% gain in dollar volume is attributed to the higher level of prices.

Food prices at wholesale in the early days of July averaged the highest since the spring of 1954. This doubtless means that **the cost-of-living index will go on rising** through the report covering July 15.

However, the seasonal downturn in food costs will begin to make itself felt either in the August or September tabulation.

Meanwhile, after five months of standing still, the index for **prices of manufactured goods** is starting to rise again. This reflects the pass-along of wage increases—and there's no nearby turnaround predictable here.

Don't look for any early letup in the corporate demand for funds.

Take just one day's announcements, on Wednesday of this week: \$250-million bonds for American Tel & Tel; \$130-million securities for El Paso Natural Gas (with \$60-million mortgage bonds for private placement plus \$60-million convertible debentures and \$10-million preferred stock for public offering); and \$50-million Duke Power debentures.

Auto producers, encouraged by dealers' reports on retail sales late in June, are scheduling substantially higher output for the third quarter this year than they finally achieved for the same 1956 period.

Their goal, as of now, is to make nearly 1.3-million cars.

That would be **at least a quarter-million better than last year** when production was choked to a four-year low to clean out field stocks.

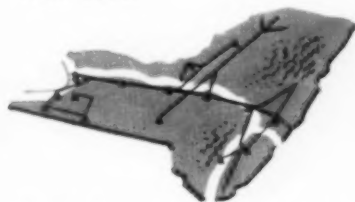
"UPSTATE, N.Y."



BEAUTIFUL LAKE GEORGE, cradled by the Adirondacks, is one of the most picturesque vacationlands in America . . . another example of why "Upstate, N.Y." is such a fine place to live and raise a family. Vacationland is right in your backyard anywhere in "Upstate, N.Y." . . . one more reason why more and more business is expanding and moving to this thriving area between the Hudson River and the Niagara Frontier.

"Upstate, N.Y." offers other advantages to growing industry . . . huge markets within overnight shipping, unexcelled transportation by major airlines, railroads, N. Y. State Thruway, Barge Canal and, soon, the St. Lawrence Seaway. All this, plus low cost electricity and natural gas, puts "Upstate, N.Y." at the top of your company's expansion list.

For more about "Upstate, N.Y.," write Earle J. Machold, President, Niagara Mohawk Power Corporation, Syracuse, New York.



The Lake George area offers a complete choice of summer and winter sports—boating, fishing, bathing, hunting, skiing—and it's only a short distance from the N.Y. State Thruway.

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How America's lowest priced tilt cab line

CUTS HAULING COSTS DOWN TO SIZE!

Your savings with Ford's modern Tilt Cab trucks start right from the day you buy—it's America's *lowest priced** tilt cab line! And look how savings go on:

You can haul longer trailers with greater loadspace—up to 36 feet long—and still meet legal over-all limits of every state! Front axles are closer to the load, carrying a greater share of payload weight, resulting in *increased payload capacity*—up to 2,000 pounds more! Short wheelbases—as short as 99 inches—give you *greater maneuverability*; save time in congested areas!

Counterbalanced cabs are easy to tilt—as easy as it is to raise the hood of a car—give *better engine accessibility* for major service! Ford's dependable Short Stroke V-8's—up to 212 hp—mean *economical operation*!

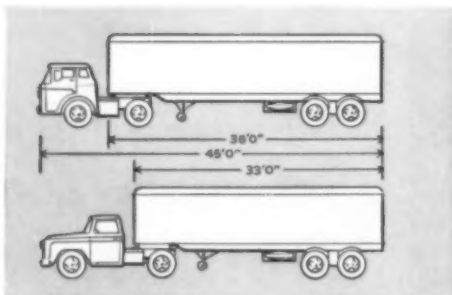
Your local Ford Dealer will gladly stop in with full details of Ford's new Tilt Cab savings. Phone him today!

*Based on a comparison of factory-suggested list prices.

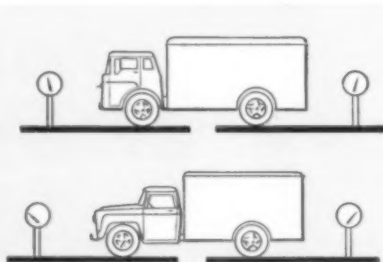


Tilts in seconds—For major engine service, cab tilts almost as easily as raising the hood of a car! Positive safety lockdown. Six new series available, up to 60,000 lb. GCW.

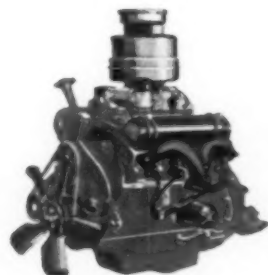
THE BIG FLEETS BUY MORE FORD TRUCKS THAN



Longer trailers. The short bumper-to-back-of-cab dimension of Ford's new Tilt Cabs lets you haul trailers up to 3 feet longer than most conventional tractors within a 45-foot over-all length.



More payload. A bigger percentage of chassis and body weight is carried on front axle because it is set back closer to the center of the load. Payload capacity is thus increased as much as 2,000 pounds.

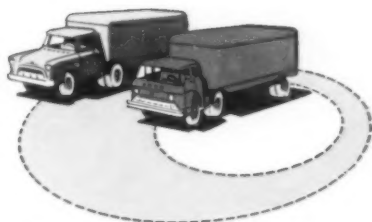


Up to 212 hp. You get the dependable, economical power of Ford's proven Short Stroke V-8's—up to 212 hp. Transmatic Drive is also available.



ANY OTHER MAKE BECAUSE . . .

FORD TRUCKS COST LESS



Better Maneuverability. Easier handling, less parking time! Ford Tilt Cabs turn in 10- to 12-foot smaller circles than comparable conventionals.

...LESS TO OWN

...LESS TO RUN

...LAST LONGER, TOO!



New CORRUGATED boxes pack sales wallop—color printing matches product

Six hundred people, on an average, see every shipping container before it's thrown away—according to an actual count. That means these new color-printed corrugated boxes do a tremendous job of preparing people to recognize on the store counters products they may never have seen before.

Impulse buying accounts for considerable sales today. People tend to buy what they see. But experience proves they buy products they know about even more readily. That's why this new idea in box printing is so valuable. At comparatively low cost, a manufacturer can convert every box into a traveling billboard. Hence it

does double duty as an effective advertising medium, reaching a tremendous audience.

Retailers like these look-alike boxes, too, and often put them to use as building blocks in store or window displays—further helping sell the product. Because they are corrugated, these boxes have the ability to protect the product and stand up under quite a bit of abuse. In addition, they're light in weight, have smooth splinter-free sides,

and are easy to open and close.

If you are looking for a new idea to spark the sale of your product, find out about color-printed corrugated. Ask your nearby boxmaker. He's listed in your classified telephone directory under "Boxes—Corrugated."

Langston doesn't sell corrugated, only the machines that make it. Since 1902, these machines have led the field in efficiency and dependability. *Samuel M. Langston Co., Camden 4, N.J.*

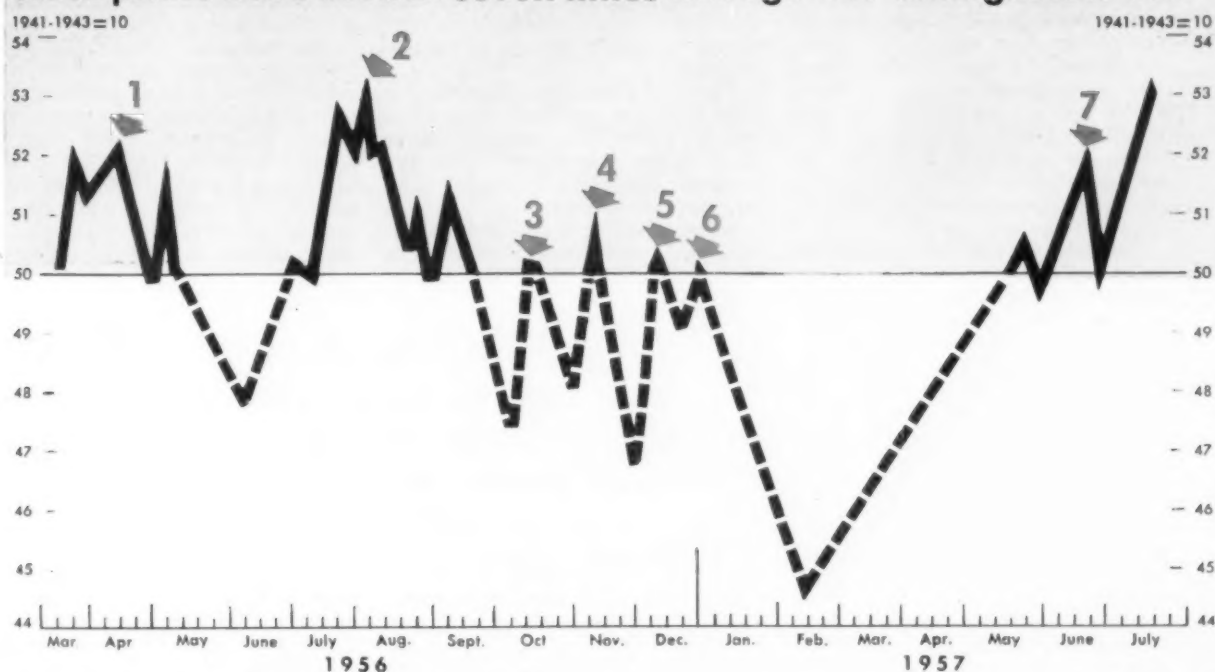
THINK FIRST OF CORRUGATED



LANGSTON

Corrugated Container Machinery

Stock prices have broken seven times through this ceiling. Now . . .



Data: Standard & Poor's Corp. Daily Industrial Stock Price Index (1941-43=10)

© BUSINESS WEEK

Stocks Are Hitting a New Stride

Inflation fears, particularly among institutional buyers, are behind the current surge in stock prices that is expected to surpass the peak that they set last summer.

TWENTY-FIVE YEARS ago this month, the stock market hit its rock bottom on July 8, 1932.

This week stock prices were close to the record highs established last August. Wall Street was watching the ticker as intensely as if it were World Series time to see just when the breakthrough would come.

A new surge, which started over two weeks ago, marks the seventh time the market pushed into this high zone (chart). Each previous attempt to pierce the ceiling was followed by a decline. But this time, the general feeling among experienced stock market men is that the current upturn will succeed where the six others failed.

• **The Reason**—The main reason now for the boom in stock prices is a new

rise of inflation-consciousness among investors. It is not only individual investors who are buying common stocks as a hedge against further deterioration in the value of the dollar. Even more significant, institutional investors fear the threat of inflation, and they are providing most of the steam behind the latest push.

The important role of institutional investors, with their enormous buying power, represents a marked change from the stock market of 25 years ago. Then, in common with the general public, institutional investors frowned on common stocks as an investment medium. Now, most institutional investors are convinced that common stocks are the preferred medium. They all agree that stocks are essential to

guard against the steady erosion in the value of the dollar. In addition, a majority feel that there is considerable danger of an outbreak of inflation in the immediate future.

• **Strong Fears**—This fear of short-run inflation is strongest in the banking community, which manages most trust and pension funds. Bankers point to a number of current inflationary pressures—price and wage increases, corporate and government spending, rising costs. In this situation, they say, stocks rather than bonds possess built-in protection against inflation. "My duty is to preserve the capital position of my clients," says a pension fund manager. "That means buying stocks with capital appreciation possibilities, not bonds with fixed yields."

Those making investment decisions say that they are not basing their policies on the current business picture alone. If they did, they admit, they would follow a more cautious pattern

of stock purchases. Business activity has moved sideways ever since the high was established in the stock market last summer. But now, there is growing belief that we will have a strong upturn in the fall accompanied by a new wave of price and wage hikes.

• **Psychological Restraint**—Many bankers feel that the previous failures to stage a definite breakthrough were due to psychological restraints. Most investors, for instance, thought that the Federal Reserve's tight-money policy would keep inflation in check. And they were prepared for a downturn earlier this year because of the continued lull in housing and autos. But when the downturn failed to materialize, at the same time that prices continued to climb, investor sentiment began betting on an upturn.

Certainly, the restrictive credit policy being pursued by the Fed is now discounted as a deflationary influence. In fact, some of the more sophisticated investment managers feel that the new climb in stock prices should be taken as a verdict that the Fed's anti-inflationary policy has not achieved its aims. "The Fed has limited the money supply for the past two years without making any dent in prices," states one banker. "Sooner or later they'll be easing up, and we'll have even higher prices. That's why stocks are a good bet."

• **Fed's Course**—On the other hand, the course the Fed follows will depend in part on stock prices. The money managers keep a close watch on stock market activity, and their own fears of inflation are based to a considerable extent on the inflationary trend in stock prices and the sentiment that such buying represents. And as long as business confidence remains strong, the Fed is not likely to change its policy.

The strong influence of institutional buyers establishes the special character of the present stock price upsurge. They favor a limited number of blue chip growth companies whose expansion has not been cramped by tight money. This concentration of demand in a relatively few issues has led to a scarcity of supply. And individual investors have tended to follow the institutional lead.

• **Stock Yields**—Thus, stocks like Superior Oil, International Business Machines, Addressograph-Multigraph and Minneapolis-Honeywell are all selling at well over 30 times earnings. The fact that they provide little or no yield is not considered a drawback. Explains one investment analyst: "There is no across-the-board betting on inflation. We only want stocks with promising past and spectacular futures."

But though the outstanding characteristic of this inflation-minded market is its interest in blue chips, the market as a whole has been stimulated.

As a result, yields on stocks have dropped to 3.8%, the lowest since the palmy days of the 1920s. Stock yields are now slightly lower than bond yields, which is a sure sign of an inflation-conscious market.

• **Counter View**—Some professionals believe that too much emphasis is being placed on the threat of inflation. They consider that this widespread fear is moving prices into an unsound area that makes them vulnerable to any change in business activity or business sentiment.

Those who hold this point of view warn that even moderate good news may be a blow. For example, Lukens Steel shares dropped \$9 when the company announced a smaller than expected extra dividend.

• **Strong Point**—It is doubtful that institutional investors will be net sellers in the event of a moderate decline. One of

the strengths of the current market is that declines have been featured by a drop-off in activity, a sign that institutions are not selling heavily.

But if inflationary fears evaporate, the institutions that are now buying may hold back new funds or shift more heavily into bonds. In that event, stocks would be hard hit.

• **Danger of Double Cross**—A number of analysts feel that the market may be in for just such a climax. As one investment man describes it, "The higher prices go, the more danger there is of a double cross. A lot of companies will have to take giant steps to justify their present stock prices, and if they fail to grow at such a pace, confidence will fade in a hurry. The power of institutional investors is such that they do not have to sell to make the market go down. If they just stop buying it will do the trick."

Credit Outlook: A New Pinch

Banks expect the Fed to raise the discount rate and are prepared to hike their rates. Key to whole picture may be the Treasury's upcoming funding operation.

While stock prices were testing the old high this week, the money market saw omens of a renewed squeeze on credit that threatened to send the prices of both government and corporate bonds to new lows. In accepting this opinion, however, the market is running ahead of the Federal Reserve itself—which has not yet made up its mind.

The biggest cloud over the money market is the massive \$15.8-billion funding operation being prepared by the Treasury. At midweek, Treasury officials were readying the announcement of the new issues they would offer in exchange to the holders of the maturing issues. Beforehand, they revealed that the offering would be short-term, and might include a three-way choice—a less-than-six-month certificate, a year certificate, and a two-to-three-year note. They also said they were prepared to pay interest rates of somewhere between $\frac{3}{4}\%$ and $\frac{1}{2}\%$.

• **The Key**—Just what interest the Treasury offers is the key to the credit situation, because the government bond market has a major influence on all other rates. If it offers the minimum of $\frac{3}{4}\%$ in an effort to keep the interest rate structure from rising, it faces a strong possibility of a failure.

If the rate goes up to $\frac{1}{2}\%$, it would automatically result in a step-up in borrowing costs all along the line.

Whatever the Treasury decides, the money market is sure that higher interest rates are unavoidable. Money men reason that a flop, due to a de-

mand for cash rather than the new issues by investors holding the maturing notes, would force the Treasury to come in next month with an offering designed to raise new cash. Then, the Treasury would have to pay a rate high enough to attract investors. As one dealer in government bonds puts it: "The Treasury can take its medicine now or later—it's only a question of time before $\frac{1}{2}\%$ becomes the standard rate for government borrowing."

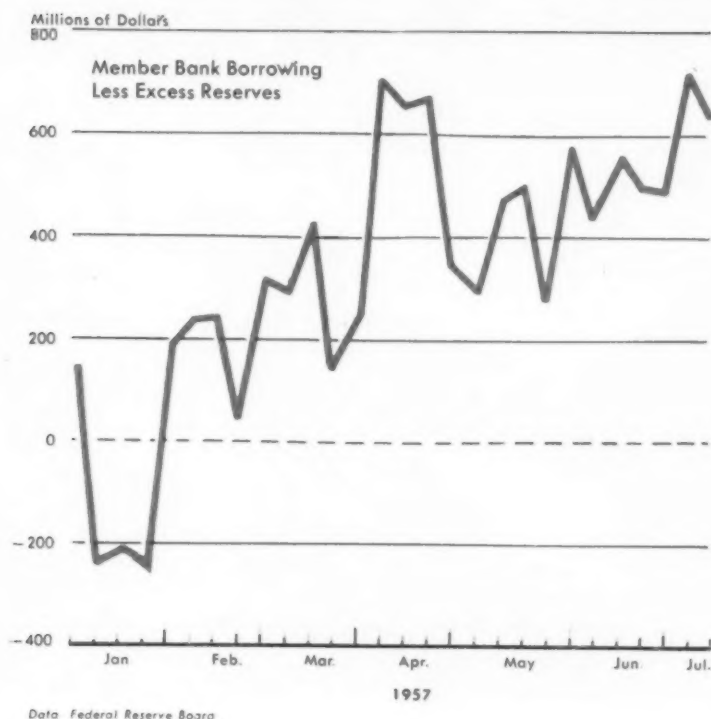
• **Fed's Position**—While the interest rate the Treasury pays is sure to have an impact on the rate structure, the monetary policies of the Federal Reserve System dictate, to a considerable extent, just what the Treasury does. At present, the Fed is sticking to its restrictive, anti-inflationary policy, which has meant increased interest costs to all borrowers. And though Fed officials say that they are willing to smooth the way for the Treasury's operations, they bluntly add that it must meet the going rates.

As long as the Fed maintains this position, interest rates appear destined to rise. And there seems to be no doubt that the Fed is sticking to its guns.

• **Barometer**—This is apparent from a look at a traditional barometer of Fed pressure on the banking system, the level of negative free reserves (the difference between member banks' excess reserves and their borrowings from the Fed—chart, page 27).

Early in the year, when demand for credit dropped off and the money

The Tightness of Credit



managers seemed to be unsure of which way to move, the banks were completely out of debt to the Fed. Then, the step-up in demand for credit and the new fears of inflation led to a renewed tightening of credit and sent the banks into hock.

Last week the squeeze was on in earnest, with the banks in debt to the tune of \$632-million. The week before, borrowings were over \$720-million, the highest they have been for more than two years. Bankers feel certain that if they are forced to keep borrowing at such levels, the money managers will increase the discount rate—the rate member banks pay on their borrowings from the Fed.

Moreover, the banks expect the Fed to raise its discount rate by a full one-half of 1%—to 3½%. They themselves plan to raise their prime rate—the interest charged the biggest corporate borrowers—from 4% to 4½%. The effective rate will be even higher, because banks are requiring borrowers to keep from 10% to 20% of loans on deposit as compensating balances.

• Divided Opinion—But while the banks are anxious for the Fed to make the move so that they can follow rather than lead, there is a definite division of opinion over credit policy within the Fed. A number of Fed officials, in Washington, and some Federal Reserve banks, feel that both the promise of an

upturn in business this fall and the threat of inflation demands a more aggressive action signaled by a hike in the discount rate. They point to price and wage increases and the stock market as support for their position.

Those who oppose any new tightening do not call for an easing. But they do argue that business activity, although on a high level, is filled with cross currents. If the Fed applied further credit restraints, they say, it might bring serious trouble to an already sour bond market.

• Possible Course—Whatever course the Fed follows, it will not act until the Treasury has finished its financing operations. This means that any move on its part is unlikely before the end of August. And it is significant that, although the Fed has been following a restrictive policy fairly constantly, it has not changed its discount rate in 11 months. This failure to move while other rates have increased suggests the Fed may continue to sit on its hands.

But the banks may not wait to see what the Fed does. As they view it, the demand for credit and the present limitation on the money supply is ample justification for an increase in their lending rates. The fact is that last August, the banks, led by First National of Boston, increased their prime rate before the Fed moved up the discount rate (BW—Aug. 25 '57, p30).

Shrinking City

New York called for a special census to measure growth since 1950—it got an unpleasant surprise.

The magnitude of the move to the suburbs was pointed dramatically to New Yorkers this week, and city officials wouldn't believe their eyes.

Preliminary results from a special census of New York City, taken in April, gave it a population of 7,771,509—a drop of 120,448 since the 1950 decennial census instead of an increase of 125,000 or more which had been expected.

• Wrong Count?—City officials said the census was wrong. They insisted that many school children and city employees had been missed, that out-of-town New Yorkers should have been accounted for, as they are during a national census when they are reallocated to their home towns.

They suggested that Negroes and Puerto Ricans, fearing penalties for illegal occupancy, tend to understate the size of their household to enumerators.

• Other Estimates—Consolidated Edison Co., whose estimate of 8.1-million last yearend was the most recent private guess, stuck by its figures. It bases estimates on occupied dwelling units and number of persons per unit.

Regional Plan Assn. estimates in 1955 put New York City population at 8,050,000.

• Suburban Growth—But after the speculation about the accuracy of the counts, some dispassionate observers began to see a greater significance. Said one economist:

"We underestimated the suburbs and overestimated the city."

Motivated by a state law that provides \$6.75 state aid per resident, 118 communities have had special censuses taken in New York State.

• Embarrassing—Mayor Robert Wagner is likely to be politically embarrassed in his bid for reelection this autumn. On the strength of the estimates, he had gambled the \$1.5-million cost of the census to get an additional \$800,000 or more annually in state aid.

Albany gave the mayor some consolation this week, assuring him that New York City's state aid will not actually be cut back because the city is not required to file the special census returns.

In all the discussion, hardly anybody paid attention to the fact that New York City has slipped behind Tokyo (8,471,637) and London (8,239,910) and is only the third largest city.



NAVAHO MISSILE is tested in an early prototype of the hull. Now the project has been dropped, and industry and its home region is

When a Big Missile Contract Is

North American Aviation, Inc., had spent 10 years on the Navaho intercontinental weapon. But the Air Force couldn't afford to continue the program during an economy drive.

WHEN THE AX fell a few days ago on the Navaho guided missile (development model shown in flight above), the country had the clearest evidence yet that:

- The Administration is dead-serious about its economy drive, which falls most heavily on the Defense Dept. (BW—Jun.15'57,p43). Cancellation of the Navaho contract, while the biggest so far, is only one of many such cutoffs and stretchouts of military buying.

- The transition of airpower from planes to missiles is as painful as anyone might have expected (BW—Jun. 15'57,p41). Inevitably, some candidates for the new arsenal of missiles must be weeded out, and the economy drive may only have precipitated the elimination of the Navaho project.

- No defense contractor can count itself safe from a contract termination in these days of rapid change in military needs and of money-consciousness.

- **Wave of Cancellations**—The Navaho contract was with North American Aviation, Inc., which has been develop-

ing the weapon for around 10 years. By the time cancellation details have been negotiated, the Air Force will have poured at least \$650-million into Navaho, which is still in the test stage.

By canceling the contract, the Air Force gives up on this missile, though some of the experimental work can be applied to other intercontinental missiles. But it saves an estimated \$300-million that it had expected to spend in the next year for continued research, advanced prototypes, and tooling for production.

The budget holddown has hit other companies in the past month or two. Some major Air Force aircraft and missile projects have been stretched out: Boeing's B-52 bomber, KC-135 jet tanker, and Bomarc missile; Republic's F-105 fighter-bomber; Martin's Matador missile; Douglas' C-132 transport; Convair's F-106 fighter-interceptor. North American itself failed to get a production contract for its F-107 fighter.

The Navy canceled contracts with Lockheed for development of an im-

proved long-range early warning plane and with Douglas for development of a carrier-based attack plane.

Reflecting cutbacks in aircraft production, the Air Force canceled \$10-million worth of advance orders with Giddings & Lewis Machine Tool Co. and Cincinnati Milling Machine Co. for giant milling machines.

- **Mean Business**—According to Pentagon insiders, the Navaho cancellation—big as it is—is only a sign of things to come.

I. Economy Wave

The broadside campaign on federal spending started with a letter sent to all department and agency heads in behalf of the President by Budget Director Percival Brundage. It directed all officials to see that spending and obligations in the new fiscal year is held to last year's rate—\$70-billion—instead of the \$71.8-billion that was estimated last January.

The cutback fell chiefly on the Defense Dept. and the Atomic Energy Commission. Many of the purely civilian functions had already been budgeted at the 1956-57 rate. Defense and AEC, working on long-lead-time



finding out what happens . . .

Canceled

projects, were caught in a real squeeze. Gen. Mgr. H. E. Fields of AEC calculated his own cutback at \$400-million, and he is hopeful of winning an exception.

Military spending is running right now at a rate at least \$2-billion above the \$38-billion scheduled last January for fiscal 1957-58. Last year, \$38.5-billion was spent, compared with an original estimate of \$36-billion.

• **Political Fury**—At midweek, Democratic congressmen were lambasting the intra-Administration economy drive, threatening to rescind appropriations already approved and to call Administration leaders back for hearings.

Charging that the Administration is angling to take credit for economy, these Democrats demanded to know:

• Why was the Administration now trying to trim a budget that it had said couldn't be trimmed further?

• Why did the President ask for larger appropriations this year than last—notably for defense—if he intended to clamp the lid on spending?

Brundage appeared before the House Appropriations Committee this week and said nearly \$2-billion could be saved if all agencies observed the budget freeze. However, he added that the

new order provides for exceptions and only about \$1-billion will probably be saved.

After his appearance, Chmn. Clarence Cannon (D-Mo.) declared that his committee is still "wholly at sea" about how much money the Administration needs this year.

• **Calling a Halt**—Obviously, the indirect order from the White House reflects growing concern that federal spending is getting out of hand—particularly military spending.

For a couple of years, the Pentagon's actual cash outlays have run well above the initial expenditure estimates on which federal budgeting is based. There are several reasons—rises in industrial prices and wages, speeding up of production lead-time, the crash program for ballistic missiles, and generous use of "partially funded" procurement by the Air Force (the starting of projects before funds are authorized to carry them through). But it looked as if drastic action was needed to arrest this acceleration in spending.

To comply with the order, the Pentagon is cutting manpower as well as the buying of hardware—this week Defense Secy. Charles E. Wilson ordered a 100,000-man cut by yearend. Cost is holding up serious consideration of the highly touted Cordiner Plan for pay boosts and fringe benefits for skilled men. On a humbler level, the Army has cut back on parades, guard mounts, and other honor ceremonies "in the interest of economy."

II. Weapon Shift

Problems of the revolution in weapons, in which missiles supplant manned planes, exasperate both industry and defense planners. The spending crack-down has only brought these problems to focus faster.

"The weapons we must build have a lead time, from first conception to quantity production, of as long as 10 years," says an aircraft executive. "Yet the Pentagon's requirements are changing almost daily."

By the same token, the military brass must commit hundreds of millions of dollars to development of weapons that may or may not pan out—without knowing for years what the odds are. Whatever the choice, it's bound to be costly.

• **The Choice**—In the present instance,

III. Impact on a Company and a Region

The Navaho has been developed under a year-to-year contract giving North American its costs plus a 6% fee. Like all Air Force development or production contracts, it included a "termination for convenience" clause that the government could invoke at any time.

the Pentagon had four intercontinental missiles under development—two guided or "cruise" missiles that are essentially pilotless bombers, two ballistic missiles that are more like projectiles or rockets.

There is little doubt that the ballistic missiles are the ultimate weapon—for speed, range, and striking power. The two cruise missiles have been regarded all along as an interim type of weapon. The Navaho is one of them; Northrop Aircraft's Snark is the other. They represented double insurance pending success of the ICBMs.

Apparently, two things changed the policy of backing both the Navaho and the Snark.

• At least two shorter-range missiles also under development but designed to be fired from manned aircraft began to look more promising as long-range bombers like the B-52 and the B-58 were perfected. These missiles could be carried within 300 mi. of the target, then launched for the rest of the trip. This would eliminate the costly ground stations for firing missiles and would provide more flexibility of attack.

• The ballistic missiles began costing so much money that the Air Force could no longer afford the luxury of double insurance—both the Snark and the Navaho—particularly when the Administration was pinching pennies.

• **One Wins, One Loses**—When it came to a choice between the Snark and the Navaho, the Air Force picked the one that was already in production. The Snark, powered by a Pratt & Whitney J57 turbojet engine, was ordered into volume production only a few weeks ago. It's slower—about 700 mph. compared with around 1,800 mph. estimated for the Navaho, hence more interceptible—but it has flown, while the Navaho's firing tests have failed.

The Navaho has two power plants: a rocket for take-off, a ramjet built by Curtiss-Wright Corp. for cruising. Reportedly, it never got to the point where the ramjet engine took over, and the Air Force, worried about it, told North American to have the missile flying by June—or else.

So the Snark won because it was farther advanced in flight testing, and because it is being financed with "old money"—money already appropriated but not spent.

Aside from losing the future business, North American takes no direct loss from the cancellation. The Air Force is committed to paying all costs for work in process (a dozen Navahos are said to be about ready for tests), inventories, and other out-of-pocket costs. It may take title to certain equipment

and order North American to dispose of the rest.

The Air Force doesn't see the shutdown of Navaho as entirely a loss but rather as "a superseded development from which useful benefits have been derived." North American's rocket engine, for example, is being enlarged for an ICBM, and its inertial guidance system "has also contributed to other programs," says an Air Force spokesman.

• **Rolling With the Punch**—North American officials are outwardly philosophical about the cancellation. The company's last annual report, in fact, reminded shareholders that it does business against "a background of uncertainty and potential risk." Besides, the company is hopeful of getting a contract for a new air-to-surface missile.

The blow falls most heavily on North American itself, which was building the fuselage, the rocket engine, and the guidance system. The only major subcontractors were Curtiss-Wright, for the ramjet engines; Walter Kidde & Co., Inc., Food Machinery & Chemical Corp., and Thompson Products, Inc.

Kidde fears "a majority" of 300 or 400 engineers and technicians assigned to the Navaho job may have to be released, loss of business may run to \$4-million to \$5-million this year, more in future years.

Curtiss-Wright, the other subcontractor with significant numbers working on the project, also says it will be releasing some people. Thompson Products, which loses only about \$1-million a year, and Food Machinery foresee no layoffs.

The immediate impact on North American is something different.

• **Quick Cutback**—This week, North American canceled \$35-million worth of orders with 2,680 suppliers and sent pink slips to 6,305 employees, as the first stage of a cut of 15,600 in the payroll. The company estimates a cut of about \$85-million a year in payroll, including suppliers. About half this money is lost to the Los Angeles area, where 900 of the suppliers are clustered.

The 15,600 dismissals, if they are carried out, amount to 30% of North American's payroll in the Los Angeles area. About 5,350 of them are the direct result of the Navaho cancellation; the others stem from the decline in aircraft work. Many workers were kept on when the F-107 production contract fell through, so they could be ready for the Navaho job.

Dismissals included 3,705 at the Missile Development Div. in Downey, Calif. (out of 7,100 employees); 1,000 at the Autonetics Div., also in Downey, which built the guidance system (out of 7,200 employees), and 150 out of 10,000 employees at the Rocketdyne Div. of Canoga Park, Calif., with 330 other dismissals on the way. The rest

of the 6,305 notices went to employees of the Los Angeles Div., which builds aircraft.

• **What's Left**—Things would have been worse but for North American's diversification program, which keeps the plants busy with contracts for other manufacturers, particularly in electronics and rocket engines.

The Los Angeles Div. has only one production contract—for the F-100 Super Sabre fighter—and that is closing out soon. It has development contracts for the A3J attack weapons system for the Navy and also for a weapons system known as WS-110, which involves the so-called chemically fueled bomber.

At its Columbus (Ohio) Div., about 17,780 workers are building T2J jet trainers and the FJ Fury carrier-based version of the Sabre for the Navy. But the plant earlier announced a tapering of about 3,000 in employment by yearend. No change is expected at the Neosho (Mo.) plant, employing 750.

• **Effect on Area**—It's possible that not all the 15,600 workers will have to be discharged. North American still hopes an air-to-surface missile contract for production will come quickly enough to save these workers. Meanwhile, thousands of families are painfully affected.

Retailers in the Downey section, particularly, are tightening their belts. They had already been feeling the aircraft workers' loss of overtime earnings. Few aircraft production jobs in the area are open these days.

Los Angeles aircraft employment has been declining most of the year at 900 a month, while over-all manufacturing employment has dipped even faster. However, non-manufacturing employment has been taking up the slack. Total work force of the area rose 12,700 from May to June.

Some argue that the Los Angeles economy is big enough to absorb North American's full 15,600 discharges. The 15,600 amount to 7% of aircraft employment but less than 1% of total employment in the metropolitan area.

• **Labor View**—The United Auto Workers, who have the North American contract, were shaken by the cancellation. Leonard Woodcock, vice-president and director of UAW's Aircraft Dept., declared that the government must not be permitted to cancel weapons contracts purely on the basis of national defense needs or national politics. He said the social, moral, and economic effect on the workers should be considered. He is talking of legislation to require severance pay for laid-off defense workers.

Seniority will be a factor in the process of paring the payroll, but no severance pay is provided.



UNIVAC picks the best bet . . .

Chicago



LOOKING ahead, Chicagoland Fair stakes a claim on the next generation of workers.



... and job hunters rush to file their applications with the Illinois State Employment Service.

Stages Fair to Lure New Workers

THIS WEEK, the Chicago Assn. of Commerce & Industry closed the doors but not the books on the Chicagoland Fair—a 16-day exposition set up on Navy Pier to show the diversity of Chicago industry and impress needed workers with the city's virtues.

Financially, the fair was a success. About 613,000 people attended, and some reports were that it grossed close to \$1-million. There is less evidence that the fair gave any real lift to industry's search for manpower in the metropolitan area. One of the best results so far was reported by Grand Sheet Metal Works, which hired two tool-makers and an engineer. Inland Steel Co. had five high-caliber applicants for 20 jobs. Hallicrafters Co., with 50 openings in 15 classifications, attributes one response to the fair.

• **Long-Term Aspect**—The main interest in this aspect, however, lies in the long-term prospect. The association, after a look at job opportunities in the Chicago metropolitan area, projected

the total community need for the next five years to at least 100,000 new workers a year—of which 75,000 would come from other areas.

The association discussed this situation about a year ago with 150 business leaders. Later, the association, duly convinced that a fair would not lose money, endorsed the idea, and turned over \$15,000 to a newly formed corporation, Chicagoland Commerce & Industry Exposition, Inc. Richard Revnes, the association's membership man, became fair director.

• **Electronic Job Hunter**—Sponsors saw the fair as a step toward recruiting. But the appeal for workers was subdued against an overtone of entertainment and merchandise. Many of the 260-plus exhibitors had their own literature describing job opportunities, and thousands of fairgoers—after screening by Illinois State Employment Service personnel—submitted their qualifications to a UNIVAC machine in Remington Rand's exhibit. The machine,

which stored the job needs of about 1,000 companies (50,000 jobs), tapped its memory and came up with appropriate job opportunities.

While the early results of these efforts seemed disappointing, the sponsors feel that the event fulfilled its purpose—to call attention to Chicago.

• **Clues**—Whatever the fair results, the association is continuing its surveys among businessmen and prospective employees. One survey, completed shortly before the fair, gives a key to what's ahead.

Edward H. Weiss & Co., an advertising agency, conducted interviews with workers in outlying areas to find what motivates people to migrate to a major metropolitan center.

The study concludes that Chicago would attract more workers if it could demonstrate it has both better jobs and the characteristics of the "hometown."

"Fishing on the lakefront," the researchers comment, "may be more of a draw than great superhighways."



OPPONENTS. Treasury Secy. Humphrey confronts Democratic Sen. Kerr at hearings.

Results of Humphrey's Ordeal

Secretary's prolonged verbal encounter with Senate committee threw some light on facts behind fiscal and monetary policy—and set off a Democratic political offensive.

The Senate Finance Committee halted its marathon investigation of the causes of inflation long enough this week to take stock of what it has accomplished—and where it's going next.

After a month of hearings—in which Treasury Secy. George M. Humphrey was the sole witness—it's clear that the committee is slogging down two separate roads, toward two separate goals:

- One goal is political advantage in the 1958 elections. Humphrey was under continuous Democratic assault throughout his 14 working days and 1,500 pages of testimony. At the first break in the hearings, Democrats launched on the Senate floor a full-scale attack on the Administration's tight money and tax policies, sparked by Sen. J. William Fulbright (Ark.) and Sen. Robert S. Kerr (Okla.).

- The other goal is to turn up as many pertinent facts as possible about how tight money affects the economy, with an eye on deciding whether we are in a new type of inflation that might require new kinds of fiscal and monetary counter-measures. This line of questioning, particularly as developed last week by Sen. Clinton P. Anderson (D-N. M.), led Secy. Humphrey to a number of frank admissions that general credit restriction as an anti-inflation device has serious faults, which he wished he knew how to correct.

- **Swan Song**—There's still no indica-

tion of how long the hearings will last, though there's every sign they will drag on for weeks. Of the 15 committee members, 14 took their turn questioning Humphrey. The ordeal was Humphrey's swan song as a Cabinet officer; he is leaving to become board chairman of National Steel Corp. His successor, Robert B. Anderson, early this week was already installed in a Treasury Dept. office, preparing to take over.

The one committee member who passed up a chance to question Humphrey was Sen. Paul Douglas (D-Ill.), formerly a professional economist, and a monetary and fiscal expert.

- **Cross Fire**—Future witnesses are not likely to receive the going-over that Humphrey suffered. The questioning was largely repetitious. One Democrat after another repeated critical questions concerning Administration policies, with Republicans bouncing back questions designed to bring out points in Humphrey's opening statement, in which the state of the economy was defended in glowing terms (BW—Jun. 22 '57, p. 23).

I. Hunt for Facts

From the Democratic side, the most searching questions into the official subject of the hearings—the financial condition of the country—came from Sen. Anderson in the closing days of Humphrey's appearance.

Here are the main points developed in the Anderson-Humphrey exchanges:

- Humphrey conceded that letting a policy of general credit stringency take its natural course "does create some hardships, some greater hardships in some places than in others." He said the Administration had given a lot of thought to how special hardships could be alleviated, but he added, "I have not been able to think of anything that I think would work . . . in practice." The trick, as Humphrey sees it, is "not to relieve hardships, because you have got to have hardships, but to try to even the hardships out as nearly and as fairly as possible."

Humphrey pointed out that credit restriction, by its nature, means that some people do not get all the credit they want. He cited loans granted by the Small Business Administration as one way in which to alleviate undue hardships.

- Humphrey would not concede that large corporations manage to avoid general credit restraints. This was in response to a question from Sen. Anderson, who had asked him to comment on a statement before a Congressional committee last December by Elliott V. Bell, editor and publisher of *BUSINESS WEEK*, that corporations felt little restraint, while tight money curtails home building, municipal finance, and small business. Humphrey conceded that these latter feel the effect first but argued that tight money is now exerting a down-hold on large, capital construction projects as well.

He was referring to the slowdown in the rate of increase of investment in new plant and equipment—reflected in official figures for some six months.

- Humphrey agreed that he had not succeeded in refunding the federal debt from short-term to long-term obligations—his ambition when he took office. In retrospect, he told Sen. Anderson, perhaps he should have bulled ahead with this policy in 1953, when he tried it with only one issue of 30-year bonds. But as for now: "I doubt very much if you could sell long-term bonds in any substantial amount at any price."

- Humphrey lashed out against the idea of using selective credit controls as a supplement to over-all restraint. "I just do not believe there is any group of men who are so smart that they can tell everybody in America what to do."

Later, his objection seemed to be more a matter of "How do you do it?" than of basic principle. Sen. Anderson spoke of possible controls over consumer and real estate credit, when demand became excessive. Humphrey implied that such controls might have a place, but stressed that he just didn't know how it could be done.

• Humphrey was cool to the idea of a national monetary commission, as recommended by the President, to examine the whole financial structure.

• **Give and Take**—In rapid-fire responses, Humphrey threw out additional responses to Anderson, many of them bearing on key questions. He agreed, for example, that the Treasury itself does have an influence on interest rates, though he insisted that the Federal Reserve exercises the primary power. Humphrey usually has argued that the Treasury did not influence interest rates, but merely paid what the market established.

In an almost off-hand comment, Humphrey opposed a rise in the discount rate at the present time. Sen. Anderson had pointed out that the interest rate being paid on Treasury bills exceeds the discount rate.

"We are better off where we are now than we would be with a change," was Humphrey's comment.

Humphrey agreed that different federal agencies now find it possible to pursue conflicting credit policies. The Federal Reserve, for example, might be exercising general restraint, while housing authorities might be easing credit.

• **Forecast**—Humphrey told the committee how the money market looks to him: Bond prices might dip further, as interest rates rise, but "on the other hand there are some indications that lead you to believe a change is not too far away."

This is in line with one of the major points Humphrey developed during his long travail: the possibility that general credit restrictions are beginning to take hold along the classic pattern, slowing the economy down, halting the creeping inflation that is the prime worry of the committee.

II. The Politics of It

From all this, Democrats sense the greater possibility of political gain. They are hungry for an issue to offset prosperity, civil rights, and the still impressive figure of Pres. Eisenhower. So they are grabbing headlines by going over to the offensive. When Sen. Kerr describes Eisenhower as having "no fiscal brains"—as he did this week—he attracts attention, at least. Republicans have to be content with defense—never a crowd-pleasing role.

Kerr defended the political nature of the hearings. The Senate, he said, "is a political body and this is a political issue." He assailed Humphrey for having told the Finance Committee that what we needed was "a little less prosperity." He pointed out that great political campaigns "have been fought on the issues of monetary and credit policies" and predicted that they "will be the grave issues" in 1958 and 1960.



OPENING sessions of Sen. Kefauver's price and monopoly probe hear from economists.

Kefauver Takes Off on Prices

He wants to know just how companies decide on price changes, and why; but despite political overtones and possible fireworks to come, hearings get off to quiet start.

The touchy subjects of "administered prices," "price leadership," and "industrial concentration" were approached gingerly this week by Sen. Estes Kefauver's antitrust and monopoly subcommittee.

The first hearings developed scarcely a headline, and gave no indication whether or not the inquiry would develop into a case of migraine for dozens of businessmen before long.

• **Controversial Background**—The investigation began in a swirl of controversy resulting from (1) the subcommittee's new report on industrial concentration—which its sponsors say shows a significant increase in the level of concentration from 1947 to 1954 (BW—Jul. 6 '57, p. 29), and (2) the \$6-a-ton increase in the price of steel.

In a period when political issues are being made out of the continual up-trend of prices, Kefauver and his staff want to dig deeply into the precise way in which company officials decide to change their prices—and why.

The political angle is clear: For instance, after tackling steel (which everyone is interested in), the committee plans to take up prices in farm machinery (which farmers complain about) and bread (which both farmers and city people complain about).

The committee hasn't yet tipped its hand clearly as to just how it will go about all this. There's little doubt that

it is feeling its way to search out companies, commodities, and price situations that will support its general view that businessmen have raised prices unnecessarily.

• **Not the Same**—This week, economist John R. Moore of the University of Tennessee pointed out that today's situation is just the opposite of that in the '30s when "administered prices" first became politically hot. Then the issue was prices going down too slowly during a period of deflation; now it's prices going up too fast during a period of inflation.

• **On the Program**—So far, there's almost no schedule laid out. But the committee has advertised that its first interest is steel—and it will begin by calling in U. S. Steel's Roger Blough.

Kefauver will ask Blough just how he fixes the price of his company's steel—and what makes him change or resist change, and why.

The impact of big business-big labor wage-setting on the economy will be explored. Current fiscal and monetary policies are also in for a going-over—all in the light of present inflationary conditions.

• **Lever**—The lever the Kefauver committee is using to pry open this far-ranging probe is what economists call "administered prices." The term was fathered back in the 1930s by Gardiner C. Means, now an economist with the

Committee for Economic Development.

His definition: "An administered price is a price set by someone, usually a producer or seller, and kept constant for a period of time and for a series of transactions." The opposite is a "market price," fluctuating on the basis of supply and demand. Means told the committee his definition is broad enough to include most wage rates as a type of administered price.

The four other economists who opened the investigation pretty much agreed with all this. Besides Moore, they were John Kenneth Galbraith of Harvard, Richard Ruggles of Yale, and Edwin G. Nourse, first chairman of Pres. Truman's Council of Economic Advisers. The witnesses agreed, too, that there is nothing inherently bad about administered prices—Means, for example, called them essential to greater efficiency and higher living standards.

• **Disagreements**—But the economists disagreed on how administered prices behave. Ruggles challenged Means' view that during the Depression administered prices fell less than so-called market prices because they are basically inflexible. There were other reasons, Ruggles argued—mainly that administered price industries are also the industries where direct costs are primarily wage costs.

Ruggles made much the same point to refute the view of Means and Galbraith that rises in administered price industries are largely responsible for recent price inflation. To Ruggles, the record since 1951 fails to bear out the contention that manufacturers have forced prices up more than might be expected in terms of wage rises.

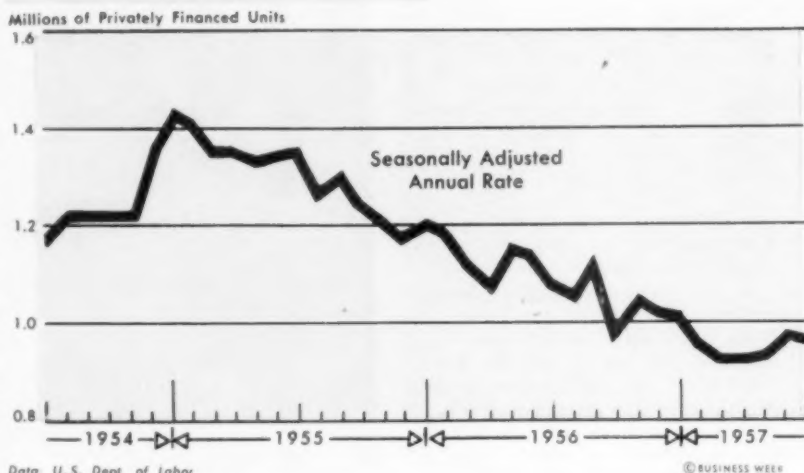
Means, on the other hand, contended that, with the discretion implicit in administered prices, it is possible to have a rise in prices without a prior increase in public demand for goods. His theory: Even if there is no excess buying power, business enterprises could decide to raise prices within the "area of discretion" so as to increase their unit profit margins.

Means was quick to point out that the same upward push on prices could be set off through the "area of price discretion in wage rates."

• **What to Do**—The economists agreed that the Kefauver committee would do well to get at the facts on this elusive subject—but they had few ideas to offer on what could or should be done in the public interest.

All concurred in the view that current tight money and fiscal policies cannot control present inflationary trends. At the same time, all seemed to approve the "jawbone" measures of of the Administration in trying to persuade business and labor to keep prices and wage demands in check.

Housing Starts



They're Hitting Bottom

Homebuilding seems at the bottom of its dip. But there's little hope for quick gains this year.

WITH A BUMP that has jolted hundreds of smaller operators out of the industry, homebuilding appears to have hit the bottom of its two-year slide. The decline, which started about mid-1955, began to level off during this year's first quarter; since then, according to Labor Dept. figures, there has even been a slight gain in homebuilding.

This week, an Administration official who keeps close watch on the industry says, "I wouldn't expect to see building tail off further." Around the country, builders are sensing the change. A few are recording it with an upturn in sales. For most the change has brought at least a stabilization. "Business is hardly better than it was six months ago, but it's no worse," many of them say.

• **Little From Washington**—Homebuilders' are likely to get little aid through the rest of the year from the Administration. The new Housing Act signed into law last week, allows the Federal Housing Administration to reduce downpayments required on FHA-guaranteed mortgages. But the act merely permits, doesn't instruct, the FHA to lower those downpayments.

Chances are that FHA will not lower its requirements. At midweek no decision had been made, but one may be announced this weekend. FHA Commissioner Norman P. Mason will not make it independently. His decision

will be based on advice from the White House, the Federal Reserve Board, the Council of Economic Advisers, and the Treasury. It's likely that the weight of this advice will be against easing downpayments.

That at least is the probability, and if it is borne out it's likely that homebuilding will remain for most of 1957 in pretty much its present condition.

• **A Better Mood**—The builders' present condition is made up of hope, lots of anxiety, and an annual operating rate that has been wavering between 930,000 and 980,000 housing starts. Earlier this year it was expected that the rate would stabilize at about this level (BW-Mar.2'57,p23).

The one thing that is better about the housing business is the mood of the men involved in it. In New York, a Long Island builders who started the year with a program for 125 homes, two months ago cut back his target to only 75, but now believes he will build and sell 90 by December.

In Hartford, Conn., a developer who started the year with a goal of 150 homes has sold 130 of them and is now cutting roads into another 40 lots.

In Houston, Tex., where until recently the market was heavily oversupplied with unsold homes, builders and lenders say that most of the surplus has been sold and that the market ought to be ready to take more.

• **Stable Business**—Plainly, few anticipate gains, most believe only that homebuilding will decline no more.

And just about all the stability the homebuilders' operations have gained has come in sales of medium-price



Protected by a laminated radiation-resistant glass window 5 feet thick, a Sinclair scientist manipulates the controls which handle the radioactive material.

Sinclair Opens "Hottest" Research Lab

Sinclair has begun pioneering a new petroleum research frontier. In a recently opened laboratory at Harvey, Ill. the most powerful source of gamma radiation ever used in industrial research has been put to work in the study of petroleum processes and products.

To date there have been three basic tools for processing crude oil—heat, pressure and catalysts. Now there is a fourth—nuclear radiation. In this "hottest" of all U.S. industrial research labs, Sinclair Research Laboratories, Inc., subsidiary of Sinclair Oil Corporation, will seek ways to use this new tool most effectively and economically.

Further, it will try with powerful radioactive

tracers to resolve heretofore unanswered questions about the basic nature of petroleum products.

New knowledge is essential to industrial progress, and Sinclair once again is showing the way in petroleum's continuing quest into the unknown.

SINCLAIR

A Great Name in Oil

(above \$13,000) and higher-price (above \$20,000) homes.

One Cincinnati builder reports his best sales are of over-\$20,000 homes. He switched to building these after doing poorly with a line of \$16,000 houses last year. Around San Francisco, builders say that homes priced from \$17,000 to \$25,000 are moving best. A Syracuse (N.Y.) builder reports that he has little trouble selling homes at \$25,000.

The common factor behind all these cases—and behind the comparative national strength of the market for middle- and upper-price homes—is that buyers of these are almost all moving out of smaller homes, are bringing with them hefty downpayments, and are best able to handle the monthly payments on conventional mortgages. This trend began developing a year ago (BW—Nov. 10'56,p86) and has kept gathering strength.

• **Aid From Industry**—This upper-price market depends to some extent on the massive expansion of U.S. industry over the last decade. In city after city, buyers of \$20,000-and-up homes are management men and upper-echelon engineers who have been transferred by their companies to new plants.

In Syracuse, where industry has been expanding fast, one builder reports that many buyers of his over-\$20,000 homes have just moved into the area and don't seem much interested in bargaining with him to shave \$1,000 or so off the prices of the homes they buy.

There are local reversals in this trend. Builders around Boston, where expansion has been slower, are selling \$12,000 homes more readily than \$18,000 to \$20,000 models, and much the same goes for builders operating around Little Rock, Ark.

• **Sickest Market**—All over the country, there's general agreement among builders that the lower-price market (\$10,000 and under) is as sick as it has ever been. Surprisingly, few builders and fewer lenders felt that the new Housing Act, with its clause permitting lowered FHA downpayment requirements, would add much life to the market—even before Eisenhower signed the bill into law. From many cities they reported: "The basic shortage of mortgage money would remain. Who's going to tie up money for 20 years at an average 5% yield [on FHA mortgages] when they can get tax-exempt municipals near that rate, and corporates at 5½% and 6%?"

Now that it's almost certain that FHA downpayment requirements will not be lowered, many builders have changed their tune. They're charging that their industry is being beaten over the head. But when compared with their earlier views, their cries seem based more on anger than on logic.

Florida's Fever Drops a Point

Land speculation, running fast for four years, slows at least temporarily. But there's no bust yet to harm the state's sound economic growth

A faint chill breeze has started blowing around Florida sending uncomfortable shivers down the spines of the state's real estate speculators.

For four or five years they have been operating at high profit on the edges of Florida's not-so-speculative development. They have bought hundreds of thousands of acres of empty land, paying from 10% to 29% down. They have held the land long enough to attract new buyers to it, then sold it, in large lumps or in subdivisions, for at least twice the price they first paid.

Lately, though, the speculators haven't been making quite their normal profits. Says a realtor in Tampa: "The crop of suckers is diminishing." Says a Florida banker: "The fever is abating." And in some areas prices are stalled.

• **Uncertain Line**—In much of the state it's difficult to draw the line between land deals that are speculation and those that are based on Florida's sound economic development. A conservative East Coast banker expresses the point. "In my office downtown," he says, "I sometimes shake my head over land deals that are being made 10 miles up the coast. Yet on my way home I drive through prosperous developments that 10 years ago seemed as speculative as today's deals." About the only way of defining real estate speculation is to say that it's based less on long-term facts than on short-term moods among buyers and sellers; less on hard cash than on notes that might or might not be honored, depending on the swift changes in mood; less on performance than on a buyer's ability to resell even before his second payment falls due.

• **Selling by Air**—Some of the deals made in Florida in the last few years plainly come into pure speculation's category. Some realtors have been renting airplanes, touring prospects over land that's for sale, and selling acreage easily.

It's in Florida's marshy interior that most of the pure land speculation has been going on. There, many of the deals involve developers' sales of single home sites to buyers dipping into the speculative market in a small way. Few of the buyers intend to build on their lots, most aim to resell at double or triple the price they pay. The developer sells to them at already inflated prices, and every so often raises prices to newcomers. If they get in now, the buyers feel, their investment is sure to grow.

But beyond their individual lots, the developer has thousands more to sell.

And where, outsiders ask, are the new buyers to come from? Says one realtor: "A lot of people seem to believe that interior land will be developed. But you could divide it into 75-ft. lots like they're doing, figure three and a half people to each house, and put the entire population of the world in there."

Realization of such economics doesn't seem to have spread far yet among buyers of the lots. It's possible that prices have not yet risen high enough to make them hesitate.

• **Falling Confidence**—Elsewhere in the state speculators haven't so much confidence as they did four months ago.

In the south-east corner the speculative fever has died down. One reason is that millionaire Arthur Vining Davis (BW—Sep. 29'56,p64) has ceased his land purchases, which at one time in the last year were running at \$250,000 a day. A number who bought land in Palm Beach County, thinking Davis would give them big prices for it, have been left holding their purchases.

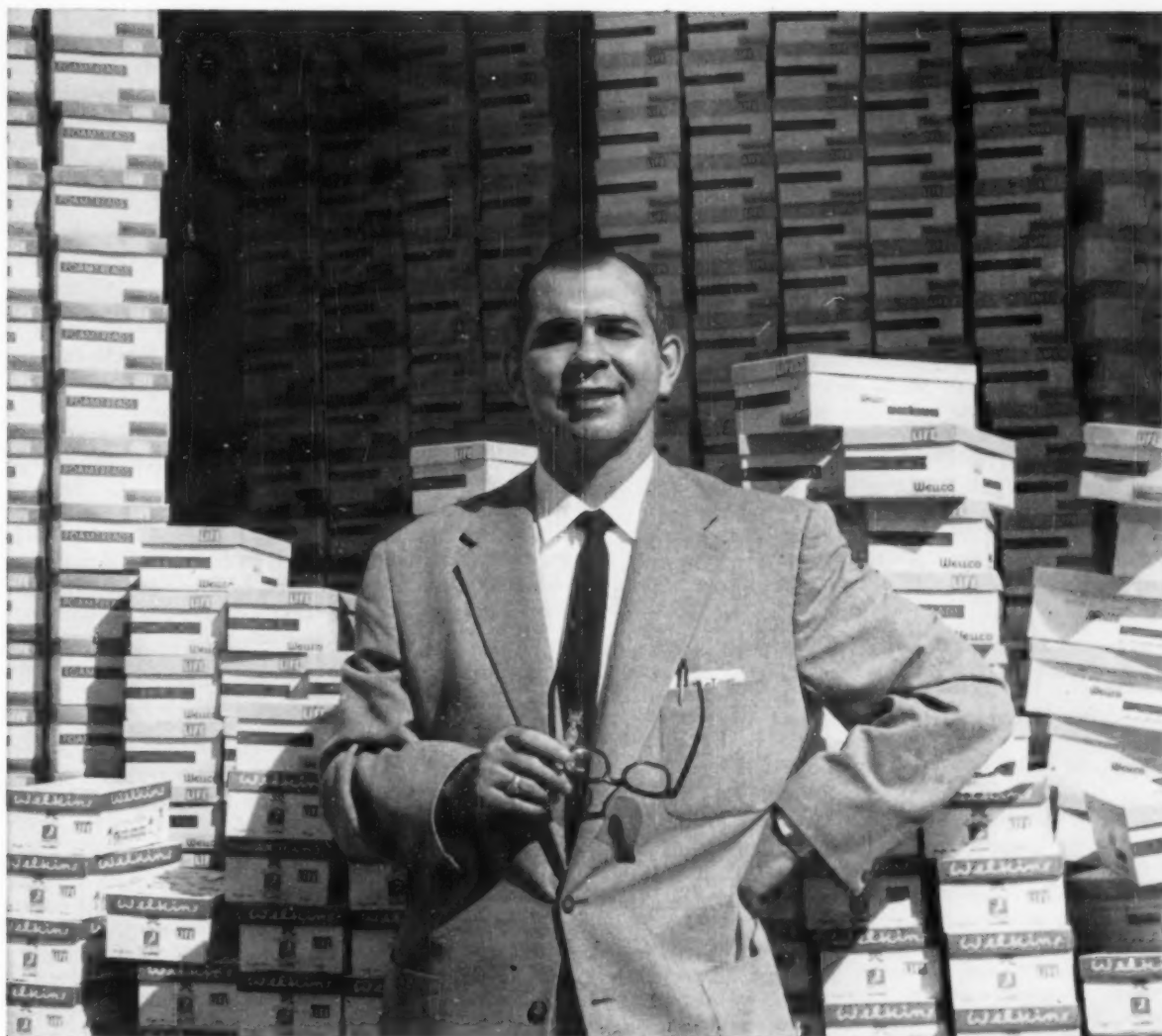
Some speculators moved over to the southern Gulf Coast. There, too, prices have climbed fast, and, says one realtor, "The fast buck boys are disappearing."

Near Miami, a few major land deals have fallen through lately. In one, Pres. John MacArthur of Bankers Life & Casualty Co. of Chicago won an option to buy 500 acres on Key Largo for \$1-million, then backed out of the deal. Says MacArthur: "It was a matter of my being indifferent." But he adds: "The boom [in Florida land] is healthy."

• **Eastern Money**—Unlike MacArthur, most of the speculators are from the East Coast, some from New York, others from Miami. The Northerners are thought to be using money they previously employed in the stock market. Those from Miami formerly traded hotels, motels, and apartment houses.

Some of Florida's bankers have been watching their activities anxiously. These bankers look for the calmness to spread. But they're afraid lest a drop in speculative land prices spread to the state's more soundly based development. The last thing they want is a sudden bursting of the bubble.

As yet, the bubble—if it is one—is merely shivering somewhat as speculative pressure eases.



Joseph Stanelli with some of the 1800 pairs of shoes he sells each week by telephone

1800 pairs of shoes sold each week—by telephone

Telephone selling turns cold calls into cold cash for Wellco Shoe Corp., Waynesville, N. C., according to Joseph Stanelli, vice president in charge of sales.

Each week he personally sells an average of 1800 pairs of shoes to retailers in 48 states. Annual sales by telephone: almost \$200,000.

Wellco points out that even though calls are made "cold" and though "routine selling in our industry normally involves showing the retailer five sample cases of samples, it is

clear that a well-developed sales message, delivered by phone, can overcome such handicaps as time, distance and trade practices."

Whatever products you sell—and whatever the size of your business—we'd like to show you how the planned use of the telephone can lead to increased profits. Just call your Bell Telephone business office. A representative will visit you at your convenience.

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Daytime Station-to-Station Calls

For example:	First 3 minutes	Each added minute
Boston to New York	75¢	20¢
Milwaukee to Detroit	90¢	25¢
Waynesville, N.C., to Cleveland	\$1.15	30¢
Seattle to San Francisco	\$1.50	40¢
Chicago to Dallas	\$1.50	40¢

Add 10% Federal Excise Tax

In Business

• • •

Canadian Tractor Maker to Buy Big British Auto Company

Massey-Harris-Ferguson, Canada's giant maker of farm implements and tractors, is taking a step back toward the old country with the purchase of Britain's Standard Motor Co.

M-H-F already owns nearly 20% of Standard Motor stock; buying the rest will come to about \$27-million. Last year, Standard Motors had sales of \$125-million, compared with \$370-million for M-H-F.

M-H-F made it clear that its chief goal in the deal is Standard Motor's plant for making Ferguson tractors at Coventry, but it also gets an auto-making business, including the Triumph, a popular sports car, and the Vanguard. The Coventry plant has a daily output of about 375 tractors.

• • •

FTC Says GM Has Right to Use "Genuine Chevrolet Parts" Label

It's O.K. with the Federal Trade Commission for General Motors Corp. to advertise replacement parts sold by its dealers as "genuine Chevrolet parts," even though GM itself didn't manufacture all of them and non-labeled parts made by competitors are just as good.

FTC dismissed charges filed last fall that the label was false, misleading, and an unfair disparagement of competitors. The agency said the great majority of the labeled parts are made expressly for use in Chevrolets and bear the GM warranty. As for the alleged disparagement, FTC ruled that GM does not claim its "genuine" parts are the only ones fit to be used, but merely points out to the public "at least one source" of high-quality replacements.

• • •

\$330-Million Pipeline Proposed to Bring Alberta Natural Gas to California

Gas-hungry California has joined other Western states in casting hopeful eyes on Canada's natural gas. In a move to meet the state's soaring fuel needs, Pacific Gas & Electric Co. last week announced plans for a 1,300-mi. pipeline that by 1960 could bring 400-million cu. ft. a day to the San Francisco Bay area from Edmonton, Alberta. Preliminary estimates are that the pipeline would cost \$330-million.

Before anything can materialize, the project will have to go over at least four governmental hurdles. O.K.'s would be needed from the Federal Power Commission, the California Public Utilities Commission, and—on the Canadian side—the Commonwealth government and Alberta's provincial authorities.

It's from Canada that objections would be most likely to arise. The Progressive Conservative Party, newly come to power, has in the past been less than enthusiastic about gas exports.

If the pipeline materializes, it will mean a 30% boost in PG&E's gas supply, which is drawn partly from California but mainly from the Southwest.

• • •

Justice Dept. Takes Stand to Bar Easing of Retail Ban on Meat Packers

The Justice Dept. this week made the long-expected announcement that it would fight any modification of the 1920 antitrust decree excluding the major meat packers from retail operations.

Easing the ban, said Justice's Antitrust Div., "could be harmful to competition in major segments" of meat packing and grocery retailing. Such an easing had been sought in a federal court petition filed by Swift & Co., Armour & Co., and Cudahy Packing Co. (BW—Dec. 22 '56, p. 54).

The packers have not publicly stated their plans, but Justice assumed that they want to own and operate full-line meat and grocery stores.

• • •

Old Men of 30, Crones of 35 Now Feel First Hiring Bars Because of Age

Graybeard loons all of 30 years old are now beginning to feel the first hardening of company resistance to hiring them because of advanced age. And, according to a survey of 121 companies by the Office Executives Assn., by the time a man is 50, he will be barred outright by 42% of the companies.

Oddly enough, OEA adds, most of the companies reverse their field by denying in detail that older workers present the very problems that are cited for not hiring them. For example, some of the companies that refuse to hire 50-year-olds nonetheless say they are still within their most productive years.

As for women workers, chivalry seems to temper business resistance at the lower age levels. The typical woman does not run into hiring trouble till she is 35, compared with the male 30. But after that, chivalry wilts swiftly: At 45, a woman is considered too old to hire by about a quarter of the companies; after 50, she finds 56% of the doors barred.

• • •

Business Brief

The sale of Mutual Broadcasting System, Inc. to a syndicate headed by Paul Roberts, Los Angeles radio executive, was on the verge of completion at midweek. Mutual is a subsidiary of RKO Teleradio Pictures, Inc., which is in turn a subsidiary of General Tire & Rubber Co. It owns no stations but has contracts with 480 outlets, plus advertising accounts, and good will.

The Roundup is on!

From Powder River to the Rio Grande, they're riding herd on the magic metal, Uranium. This year, the new West's wildest industry will double our production of uranium ore — and double it again in '58.

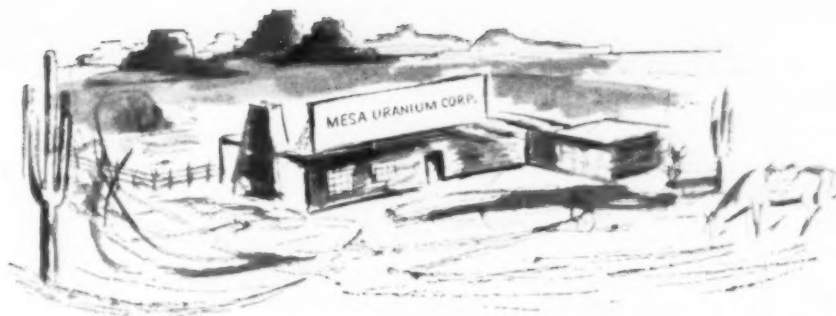
What does this mean to industry? Overnight, a peaceful explosion of power is about to revolutionize the Machine Age. Here is tomorrow morning's nuclear news:

Operating or in advanced development by late '58 — at least 500 U. S. reactors . . . \$7 billion in government facilities . . . 7 privately financed power plants . . . 7 atomic submarines . . . the first atomic merchant ships . . . experimental atomic aircraft . . . mass-produced reactors for industry . . . packaged power for export . . . reactor development projects in 39 nations with U. S. aid . . . and such far-flung product applications as nuclear-vulcanized tires, nuclear-battered wrist watches, nuclear-illuminated signal lights.

How will this industrial revolution affect *your* products and processes, materials and methods? Machine tool engineers can help you to plan now to meet tomorrow's nuclear problems.

And no other machine tool builder in the world can equal Jones & Lamson's industry-wide experience in the solution of the most advanced problems relating to high-velocity metal turning and grinding equipment.

We offer a variety of liberal finance plans, tailored to meet your requirements.

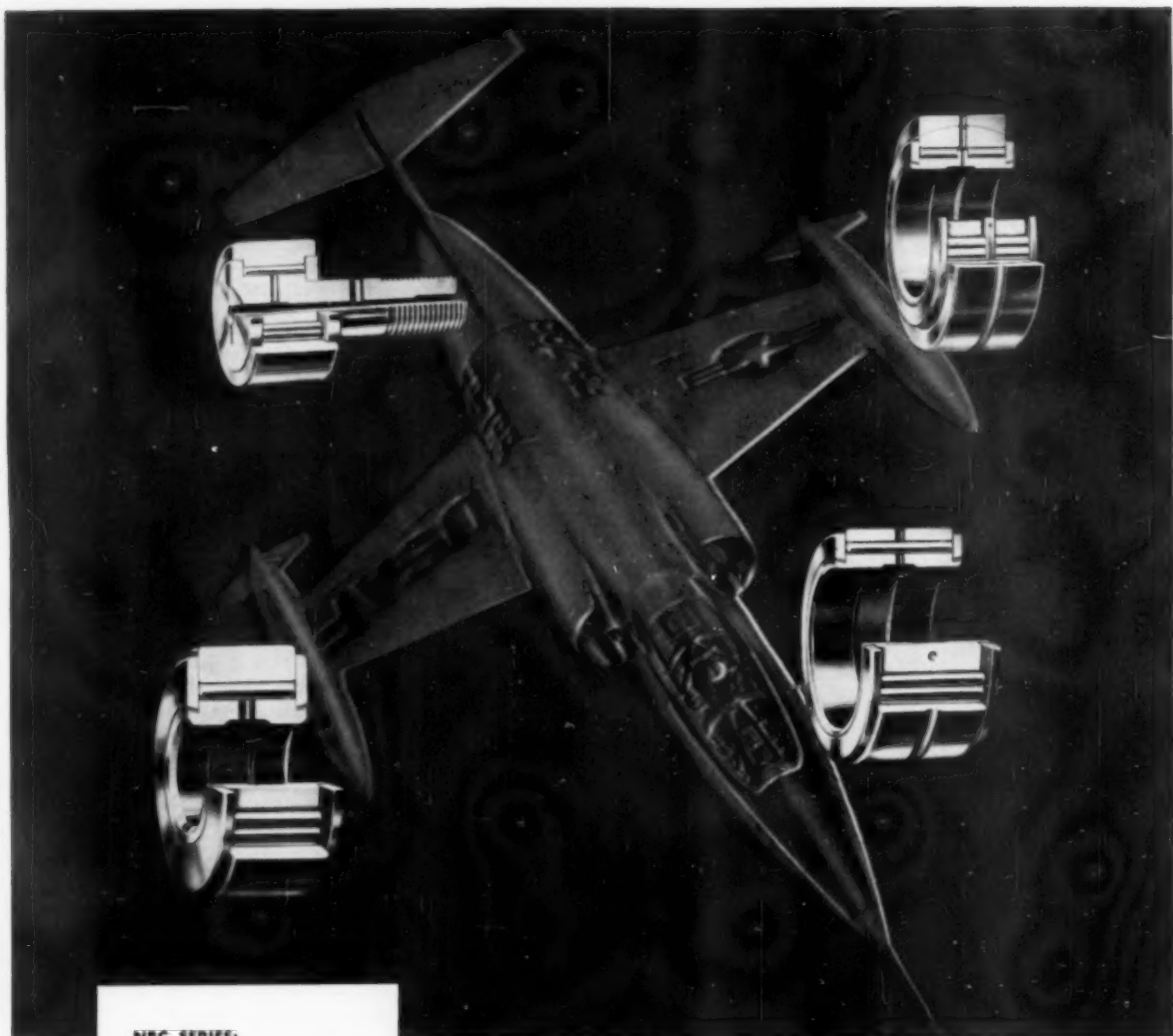


**the man who needs
a new machine tool
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NBC SERIES:

inner race, outer race, rollers and end washers securely fastened to inner race.

NBF SERIES:

extra heavy outer race for heavy rolling loads. Also available in double row NBL series.

NBK SERIES:

double row of rollers and self-aligning spherical OD outer race mounted in spherical ID ring.

CR SERIES:

heavy outer race and integral stud permitting cantilever mounting for use as cam or track roller.

Photo shows Lockheed's F-104A Starfighter, world's fastest, most advanced jet fighter, which is equipped with Torrington Aircraft Bearings.

Light for flight...

complete series of high-capacity Torrington Needle Bearings for aircraft application

Torrington Needle Bearings, offering maximum radial capacity in minimum cross section, are ideal for aircraft applications requiring dependable performance with light weight.

Torrington has developed four basic types to cover a complete range of application requirements. All are nonseparable units, made to AFBMA standards, constructed to have low radial clearance when mounted to keep vibration and backlash in mechanisms to a minimum.

Carefully selected quality steels and the most modern manufacturing methods are used in the production of these efficient aircraft-type Needle Bearings. At low unit cost, they bring efficient anti-friction operation for reliable performance and long service life. For further information on their selection and application, just call your nearest Torrington representative or write: THE TORRINGTON COMPANY, Torrington, Conn.—and South Bend 21, Ind.

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
JULY 20, 1957



You stand a good chance of getting your income tax cut in 1958.

It's no sure thing, of course. Much depends on what happens, between now and next spring, to the trends in government spending and the level of business activity. But developments this week made one thing clear:

Both political parties want a cut before the 1958 Congressional elections. And each is maneuvering to get the political credit.

Note what Eisenhower is doing to set the stage for a 1958 cut.

There's the spending ceiling, which is supposed to halt the uptrend in government outlays scheduled in the 1957-58 budget that went to Congress in January. Departments and agencies are ordered to hold spending at fiscal 1957 levels (page 28). That could mean a saving of upward of \$2-billion from the January budget. That much reduction seems unlikely. But a cut of some \$1-billion is possible. While this is not great in a \$71.8-billion schedule, it is important. If the spending uptrend can be halted, the budget for fiscal 1959 may have room for a tax cut.

The President is leaving the door open for a cut next year.

His letter this week to the House Ways & Means Committee, opposing special tax relief at this time for small business and other groups, caused a great deal of confusion. It stated specifically that tax rates should be left where they are for the current fiscal year, in order to maintain a budget balance and provide some surplus to apply against the national debt. Read literally, it seemed to close the door to any tax cut in the 1959 fiscal year. But a few phone calls to White House staffers made it clear that this is not what the President intended to say. He will take a new look at the spending-receipts and business picture next January when he sends the 1958 budget to Congress before making a final tax decision.

The Democrats may still move on taxes this year. They have no intention of cutting taxes now. But if there is to be a tax cut on 1958 incomes, they would like to have the credit for launching it.

The maneuver under consideration is this: Let the House go ahead, while the Senate is tied up on the so-called right-to-vote bill, and put through a tax reduction to become effective next year. There's sentiment for the cut to start Jan. 1. But it's more probable that if anything is done, the cut will be set for next July 1. You would get only half the benefits on next year's income, but you would feel the reduction before the elections.

Any House-approved tax cut would be left pending in the Senate. The political idea is to put the Democrats in position to move fast next year, after they see the spending-receipts picture and business prospects for the new fiscal period. Any Eisenhower ideas they want to adopt would merely be written into the House bill in the form of amendments. The basic legislation would still carry the Democratic label.

— • —
Who will get the tax cut if one is voted?

Individuals will come first. Both the Eisenhower Administration and the Democrats agree on this. Relief probably would run from one end of the income scale to the other, but the low and low-middle income earners would get the biggest percentage of benefits.

Relief to corporations is doubtful. Democrats are convinced that the

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
JULY 20, 1957

1954 tax relief bill overstimulated capital investment and has been a factor in the recent uptrend in prices. Some Eisenhower officials agree with this. About the most that corporations can hope for is a slight cut in the present 52% combined normal and surtax rate. The rate is scheduled by law to drop to 47% next July 1. But it's most unlikely that it will be allowed to go below 50%. That would give the companies and the government an even split—each would get 50% out of corporate profits.

—•—
Eisenhower's new economy order will get some results. But to bring into focus what's going on, you need to go back to January.

Eisenhower asked \$71.8-billion in his budget. That was for fiscal 1958, which started this month. And it was a peacetime record.

Then came the economy mail, pouring in on the White House and on members of Congress. Retiring Treasury Secy. Humphrey had called the budget too big and, in effect, had invited Congress to cut it.

Congress talked up cuts, and Eisenhower went along with the idea.

Then Eisenhower switched, defended his budget, and insisted that the money scheduled for spending was essential.

Now the Eisenhower order to agencies and departments is to cut—hold their spending to the 1957 fiscal levels, which would save something like \$1.8-billion from the January schedule. Many officials say that with prices rising, Eisenhower will be lucky to save as much as \$1-billion.

—•—
Eisenhower is having trouble filling key jobs:

Clarence Randall is not to be Defense Secretary. The White House let it be known that he doesn't want the Wilson spot.

Robert Craft of Chase Bank, was offered Burgess' job as the Treasury's Under Secretary. He won't take it.

—•—
Most bills now pending in Congress will fail. The civil rights fight has about everything else held up. When the fight's over, Congress will quit.

The Small Business Administration will be continued.

A postal rate hike is most uncertain. There's strong backing for it but also a realization that a postal pay raise would nullify it.

On antitrust, the bill requiring a 60-day pre-merger notice will get through. But it may well be delayed until next year.

Eisenhower will determine the civil rights compromise. The Southerners are licked this time. Most of them privately admit it. All of the rulings of Vice-Pres. Nixon favor backers of the President's bill. And there's a majority of the Senate, liberal Democrats and Republicans, who are willing to go all the way on the bill—to put it over if Eisenhower really wants it.

But there's a deal in prospect. Politicians never like really to settle an issue that they think will make them votes. When they do, the issue is gone. There were times when Roosevelt could have had his Fair Employment Practices Commission (FEPC). But he never fought it through. The Democrats collected Northern Negro votes by keeping the issue dangling. The betting in Washington today is that Eisenhower won't insist that Congress pass the Brownell bill. The President is expected to settle for the right-to-vote section, even with a jury trial amendment.

Announcing



the Sweptside 100

Straight out of tomorrow comes this new prestige pick-up. It's the brilliant Dodge Sweptside 100 . . . the most exciting new pick-up of them all. You get a truck-sized 1675-lb. payload capacity, gleaming chrome bumpers and smart two-tone paint as standard equipment. Famous push-button LoadFlite automatic transmission, power steering, power brakes and the flashing 204-hp. V-8 engine are all available. Equipped any way you like it, the Sweptside 100 is priced surprisingly low. Better see it and drive it soon.

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Locked under the floor of the Gulf, one of Nature's most stubbornly held treasures, Natural gas! Trillions of cubic feet, now freed by sea-going drillers.

Long metallic fingers of pipeline reach it . . . gather and tie these offshore fields into the 9,800 mile system of Tennessee Gas. Swell its reserves to a record high of 15 trillion cubic feet!

No easy task delivering this new gift from the sea.

But where gas is, Tennessee Gas goes . . . to bring it to you.



THE MODERN FUEL FOR MODERN HOMES—
3 of every 5 new homes today enjoy the automatic, dependable convenience of natural gas.

TENNESSEE GAS
TRANSMISSION COMPANY
AMERICA'S LEADING TRANSPORTER OF NATURAL GAS

HOUSTON, TEXAS



Setback for New Oil Pricing

● Oil marketers would like to base prices on costs, rather than on variable supply and demand factors. But last month's attempt to do it has now collapsed.

● Competition is too severe, with refineries pouring out huge stocks of products, in and out of season.

● So the industry is now going to have to swallow the latest round of wage boosts—at least until the time seems ripe for another attempt at cost-based pricing.

For years, oil economists have urged the oil industry to set its product prices as the steel industry does—on costs rather than on supply-demand factors. A month ago, a couple of dozen oil companies, including most of the majors, tried to put through some price increases in a weak market. They're still picking up the pieces.

The announced increases, as in the steel business, were based on wage boosts and other operating costs. But, as many skeptics had predicted, they failed to stick. Prices on some products, such as heating fuels, this week dropped below what they had been before the increases were posted.

Nonetheless, the attempt to tie prices to costs rather than to what the market will bear is viewed by many marketers as a significant precedent. And the oil companies are studying whatever lessons they can learn from it.

I. Action and Reaction

Sinclair Refining Co. took the lead in raising prices. On June 18, it announced a boost of 0.2¢ a gallon on gasoline, kerosene, and distillate fuels, such as light heating oil and diesel oil, and 5¢ a barrel (42 gal.) on residual fuels such as No. 6 oil.

In negotiations with the Oil, Chemical & Atomic Workers, Sinclair had just agreed to a 6% wage increase, and the company linked the price boost to its labor costs. Since 1946, it pointed out, the industry had absorbed eight boosts in basic wages.

"The higher costs resulting from this latest wage increase," said Sinclair, "cannot be offset at this time by additional volume or by other means. The increase in product prices is necessary to enable the company to recover this large increase in costs."

Standard Oil Co. of California and other West Coast companies quickly posted similar increases. Most com-

panies were faced by the same wage boosts as Sinclair, and the list of price boosters grew to 23 by the end of June. Included were such major companies as Standard Oil Co. (Ind.), Standard Oil Co. (Ohio), Shell Oil Co., Esso Standard Oil Co., and Socony Mobil Oil Co.

• **Flood of Oil**—Meanwhile, inventories of petroleum products were high, and many observers doubted that price increases would hold up. Several days before the announced boosts, the Chase Manhattan Bank's oil newsletter had noted "a serious state of oversupply."

"A flood of oil," said the newsletter, "is not going to boost consumption rates. It can only lead to uneconomic prices."

The Empire State Petroleum Assn., a jobber group, commented that the price boosts came at a moment when all products, particularly light fuels, were in abundant supply, with fuels at their seasonal low in demand. The oil industry on the East Coast, in fact, had just reduced prices on some grades of fuel. "The economics of supply and demand in the petroleum industry today are not favorable to the move," the organization concluded.

• **Backtracking**—Last week, Esso Standard, biggest supplier in the East, abandoned the increases for home heating oils, and this week it also cut its prices for heavy fuel oils—by twice as much as the previous rise. Other companies are following this lead.

Gasoline prices held their ground officially, but in practice they were dipping below the posted increased prices, especially in such price war areas as New England, Pennsylvania, and parts of Virginia and North Carolina.

What one oil pricing expert called "a noble experiment" was over, for the present, at least.

• **What It Did**—Though the price increases fizzled, oil industry observers see signs of a new determination to pass

along increased costs as soon as they are incurred, rather than waiting for them to pile up as they have in the past. This would relate prices to operating costs instead of to supply and demand, which fluctuate disconcertingly in the oil business.

The National Petroleum Assn., for example, hailed the price moves as possibly "a historic step to bring home to the public the cost of doing business." A newsletter published by Petroleum Outlook, an industry periodical, comments that the industry was trying "a pricing policy based on costs rather than on fear of public resentment and government investigation."

II. Pricing Methods

The oil industry has long looked enviously at steel's success in passing wage increases and other rising costs along to the customers. At the same time, it is aware of fundamental differences from the steel business.

In oil, there are far more competing companies, and labor costs don't represent anywhere nearly so high a proportion on operating expense, particularly in refining, which is highly mechanized.

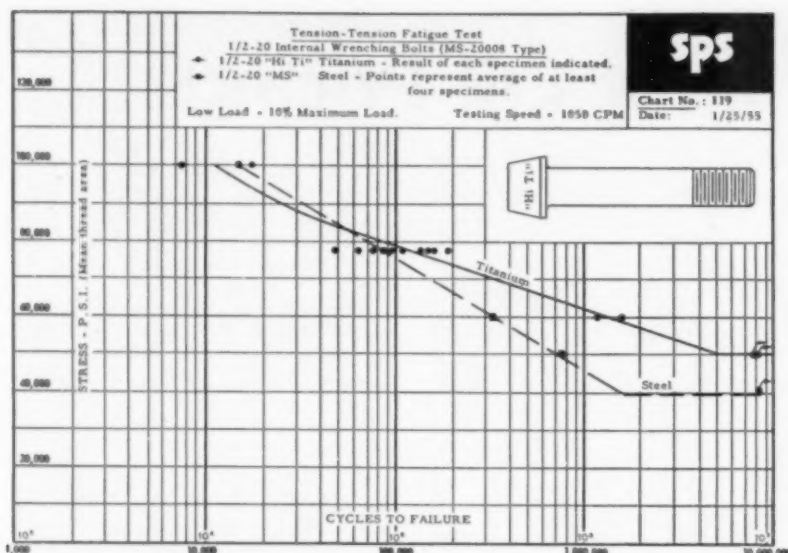
Tradition is against frequent price changes, too, in the oil industry. Price boosts have always been widely spaced, reflecting costs that have already accumulated. Crude oil prices rose last January, for example, for the first time since the summer of 1953.

• **Prices at Two Levels**—There's a big difference between the two kinds of price with which the industry deals: the price of crude and the prices of products.

The price of crude is set not by what the sellers demand but by what the buyers are willing to pay. Moreover, the big integrated companies are both sellers and buyers of crude. They weigh their position from both sides and set the price of crude; if enough other companies follow one big company's move, the new price sticks.

In contrast, prices of petroleum products rather closely follow supply-demand fluctuations, complicated by such factors as geography and seasonal needs of various localities. Even when a clearly visible rise in cost, such as an increase in the price of crude oil, leads to a product price hike, market conditions often force a backdown—as they did last week.

• **Shrinking Return**—Oil marketing men complain that this situation doesn't permit them to recover their



MAXIMUM RESISTANCE TO FATIGUE FAILURE is essential in fasteners that hold airframes together. It is the high vibration to which aircraft fasteners are subjected that sometimes causes them to fail. This chart gives the results of comparative fatigue tests of alloy steel aircraft bolts and SPS Hi-Ti titanium bolts of the same configuration and size. The lightweight titanium bolts showed better endurance under extreme fatigue-producing conditions than alloy steel.

SPS HI-TI TITANIUM BOLTS INCREASE AIRCRAFT PAYLOADS



MS20004 Series Hi-Ti titanium internal wrenching aircraft bolt.

Lightweight fasteners save up to 1/2 ton of airframe weight

Hi-Ti titanium aircraft bolts developed by Standard Pressed Steel Co. weigh only 57% as much as similar bolts of alloy steel. One pound of titanium bolts do the same work as 1 3/4 pounds of steel bolts—without loss of strength. Payload of an airplane is increased up to 1000 pounds.

SPS Hi-Ti titanium bolts are available in four configurations—MS20004 Series (internal wrenching bolt); NAS 334 type (internal wrenching flush head shear bolt); NAS 464 type (hex head shear bolt) and 12-point external wrenching tension bolts. Complete tension-tension charts are included with each shipment.

SPS supplies standard aircraft fasteners in many configurations—and many special products—to every major aircraft manufacturer. And, with our complete laboratory facilities, we are prepared to accept research contracts when they fit into your work on fastener development problems. Write Aircraft Products Division, STANDARD PRESSED STEEL CO., Jenkintown 57, Pa.

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SPS

JENKINTOWN PENNSYLVANIA

costs and earn a reasonable return on investment in plant.

In testifying about gasoline prices before a Massachusetts legislative committee, an Esso Standard spokesman said his company "has found it increasingly difficult to secure the price required to give us what I would term even a normal return on our investment." In 1950, he said, Esso had an 11.6% return on investment; last year, it had dropped to 7.5%.

Yet, as the recent round of price increases showed, it isn't easy to adjust prices gradually to keep step with rising costs. And oil companies are highly sensitive to charges of collusion or of tampering with the free play of supply and demand.

• **Tangled Costs**—Besides, the allocation of costs to individual products is complicated if not impossible (BW—Jun. 15 '57, p192). According to Esso, you can't accurately determine the cost of any single products.

In pricing gasoline for wholesale to the dealers, for example, Esso bases its "target price" not on its own area-by-area refining costs but on the going price of gasoline at the Gulf Coast, which has the greatest concentration of refinery capacity. This price is then stepped up by adding costs of transportation and marketing and a profit margin. But the result is only a target price that may be modified by local conditions.

III. Too Much Capacity

A basic problem on the supply side of the equation is the industry's excess of producing and refining capacity. Domestic oil is drawn from the earth by about 15,000 producers, both major companies and smaller independents. They compete to sell as much crude as possible to the refineries.

The industry also has more refinery capacity than it needs, partly because the government wants some stand-by reserve for emergencies. The industry doesn't let this capacity lie idle.

Refineries tend to run near capacity even when the market for their products is weak. Valid reasons for this are:

- Refineries must commit themselves well in advance for their supplies of crude. Once the crude is on hand, it's better to process it and store it in the form of refined products than to store it in raw form.

- Refining is most economical in heavy runs. A factor called "the incremental barrel" determines the point where products are being turned out at the least possible cost. Products refined at this minimum cost can be sold at higher profit in a strong market or at cheaper prices in a weak market without incurring losses.

But there's a limit to how much prod-



*Fire-fighting vehicles which must keep on fighting
call for . . .*

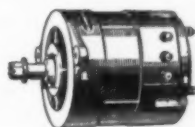
Delco-Remy Extra-Duty Electrical Equipment

to supply the extra electric power they need

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Be sure to specify Delco-Remy extra-duty electrical equipment, including the new longer life Delco batteries, on the new vehicles you order, and when you re-equip present ones. Both 6- and 12-volt a.c. and d.c. application packages are available.



Model 1117105 is a Delco-Remy 12-volt a.c. generator widely used on fire-fighting vehicles. This dependable unit can provide up to 105 amperes under pumping conditions.

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is not for the birds . . . but rather

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Whiting-Plover Paper Company,

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uct the refiners can store or want to store, so the high output by refineries goes fairly fast into the market, keeping prices down. Meanwhile, each refinery tries to maintain or increase its share of the market.

• **Seasons Out of Step**—The seasonal imbalance is another factor in throwing product prices out of whack. Refineries produce heating oil and gasoline at the same time, for example, yet consumption of fuel oil vanishes in summer, the time when gasoline reaches its peak. Thus, in one season or the other, the industry has a heavy inventory hanging over the market.

Summer buying of heating oil is confined chiefly to jobbers and marketers who are building up stocks for the winter—and trying to persuade householders to fill their home fuel tanks. The fact that prices generally drop in summer made last month's price boosts on heating oils all the more startling.

Gasoline demand fluctuates less drastically from season to season, though summer is still the peak period. But the accumulation of heavy stocks in certain areas often leads to fierce price wars.

When market forces like these begin to operate, an oil company's target price may prove to be only a dream. Then, too, the industry practice of granting voluntary discounts makes it often hard to determine even if a product is selling for its posted price. According to one theory, the chief aim of the companies in raising prices a month ago was to create a higher plateau from which to grant discounts.

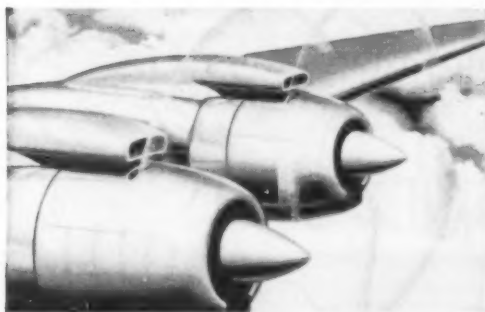
• **Smart Move?**—Regardless of the lack of success of the price move, many industry leaders applaud the idea that prices should reflect costs. Petroleum Week, a McGraw-Hill publication, comments that the industry has been "niggardly" in its pricing, that "obviously a basic change either in the industry's approach to pricing or in its pricing methods is needed."

However, Sinclair Refining, leader in the price rise, insists that its move was no real departure from customary methods, despite the interpretation some people have placed on it. "You can never get away from supply and demand," says Executive Vice-Pres. Marc F. Braeckel.

This is close to the view held at the Esso headquarters, where the price hike was regarded as a dubious stroke all along. An Esso spokesman comments that when a company bases a price rise on a specified new increase in operating costs, it implies the previous price was correct. And Esso will argue long and loud that product prices as a group run too low in relation to costs. It sees no solution until supply and demand are brought into better balance. **END**



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Can Detroit Sell Without Speed?



ABOUT A MONTH AGO, the automobile industry made what looked like the supreme sacrifice. Through the Automobile Manufacturers Assn., it promised to "emphasize useful power, and safe, reliable, and comfortable transportation . . . rather than capacity for speed" in selling its shining wares (BW—Jun.15'57,p76).

There's no clear indication yet just how firmly the car makers will stick by their new resolution. But already some deeds—and many words—suggest the breadth of impact of a resolution that calls for a complete switch in selling tactics.

Ford has already translated the resolution into a policy directive, which one Ford man describes as the most stringent he has ever seen. It goes so far as to forbid the loaning of cars to the motor magazines for testing purposes.

Multimillion-dollar contracts between auto companies and professional racers have been dissolved.

The "speed shops"—where car buyers must now turn if they want a revved-up model—hope for a revival of business. They were about killed off when Detroit started to supply the extra features that gave their stock models extra power.

Insurance companies hope for some improvement in their picture. They have been pleading for some such action for years. Last year, members of the National Bureau of Casualty Underwriters reported a loss of \$64-million, though speed was not the only villain (BW—Mar. 16'57,p139).

And oil companies, which have put much effort into more and more potent fuel, might feel a slowdown in this competitive race.

THE RESOLUTION aimed particularly at participating by the factories in organized racing. Adver-

tising and publicizing the results of contests was a favorite sales prop for the industry from the beginning. This promotion peaked during the 1925-1935 decade, when concerns such as Duesenberg, Stutz, and Studebaker maintained factory-paid racing teams; when Hudson and Ford climbed obscure mountains for the record; when Auburn, Cord, and others used the Bonneville Salt Flats for combination speed and endurance trials; and when Franklin and Hupmobile broke records—and laws—on transcontinental runs.

Then, for a few prewar years, the industry came to a tacit, though not formalized, agreement to let up. Right after the war, there was no need for such sales promotion.

Around 1948, though, competition tightened up. Stock car racing as a professional sport came into its own. West Coast hot-rodding and amateur racing of imported cars got plenty of limelight—and Detroit's own products weren't showing up too well.

In 1949, Hudson made news when it gave full factory support to one Marshall Teague and his "fabulous Hornet." Actually, Teague himself had to design many of the accessories to give Hudson a winning margin—and most of these innovations found their way into the standard product.

The AMA resolution, however, stems directly from Speed Week at Daytona Beach, Fla., in February, 1955. Then—and since—nearly everyone won something it could boast about in its advertising. This was particularly true of Chevrolet, which had just introduced a peppy V-8 engine and won in its class.

Chevrolet began to cooperate with professional race drivers who drove its cars. The program grew from merely supplying special parts at cost to maintaining nearly a dozen drivers on salary, along with a retinue of mechanics. After a sporadic effort to plug safety, Ford got on the speedwagon. By this year, both Ford and Chevrolet had budgeted some \$3-million for racing and special events. Plymouth, Oldsmobile, Mercury, and Pontiac all had less ambitious programs. Chrysler and Dodge gave complete

cooperation to a wealthy independent racer. American Motors didn't do too much, mainly because it lacked the budget. Only Cadillac and Buick abstained completely.

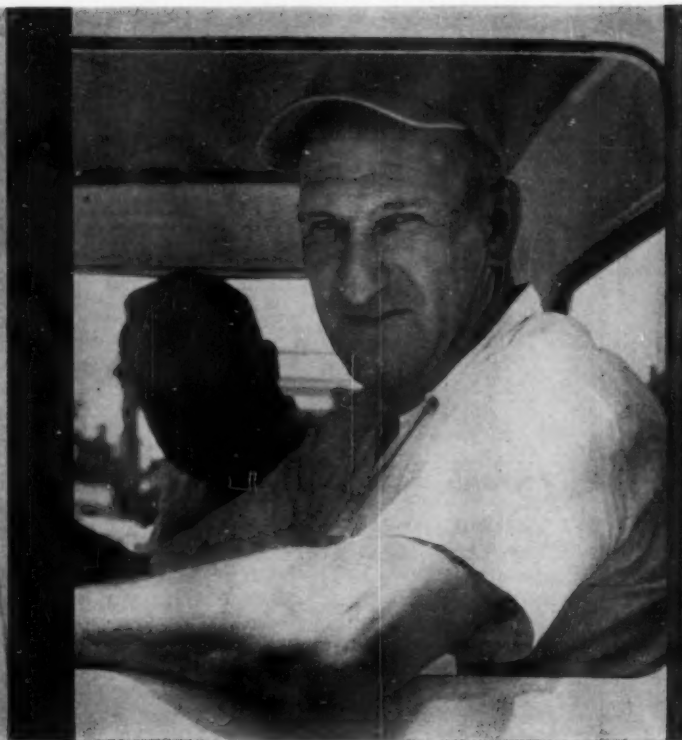
A GLANCE through 1957 catalogues shows that every company produces an extra-cost model designed for exceptional performance. These models have all the hot-rodders' trademarks from dual exhausts to fuel injection. These special cars have accounted for a substantial chunk of the market.

Thus the resolution, if strictly carried out, will represent a real sacrifice. It is a greater sacrifice because Detroit feels it has good arguments to establish that accelerating ability is synonymous with safety. While highway fatalities have risen in the past decade, the bulk of fatalities, Detroit insists, occur at speeds less than 45 mph. And while horsepower has nearly doubled, top speed capability for the average production-line car has risen only from a little over 90 to a little over 100 mph.

Detroit thought it had convinced a Senate investigating committee last fall that horsepower was a safety factor, especially in passing. But the committee blasted the car makers just the same—and it was undoubtedly fear of legislation that brought on the resolution.

THE NEW PROGRAM will certainly make car selling harder. Fuel economy is not nearly so romantic a sales point as speed or power. Cynics comment that auto copywriters must now get to work. A few minor changes are already showing. Ford "hurries," it doesn't "speed." Chevy is "sassy."

How effective the program will be is anyone's guess. Detroit is no merchant of death. It is just giving the public what it wants. The power race may slack off because there's little merit in building up a power you can't brag about. But sober observers see little chance of any drastic design change in upcoming cars, or any measurable drop in accidents involving teenagers. No one has yet found a way to stop young America from fiddling under the hood.



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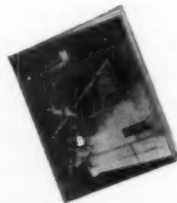
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In the production of this collet, Universal Engineering Co. reported it was able to increase spindle speed from 308 to 374 R.P.M. and machine speed from 108 to 125 S.F.M. Feed was stepped up from .0027 to .0047 inch per revolution. In addition to a production increase from 101 to 120 pieces per

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In Marketing

• • •

Hawaii Merchants Try to Make Retail Taxes More Visible

An old Hawaii battle over retail taxes is reaching fever pitch. Merchants who had tried to get a "visible tax" through the 1957 Territorial Legislature failed—but they are making their tax visible anyhow.

On July 1, the former 2½% general excise tax on retailers went up to 3½%. Since the tax was considered a merchant's gross income tax, not a sales tax, the 2½% had been buried in the consumer's price. The Retail Board of the Honolulu Chamber of Commerce came up with a plan to make the new, higher tax apparent.

The plan was this. Starting July 1, merchants would roll back prices 2½%—in effect rubbing out the old tax. Then to the new base they would tack on—and show—the new tax.

The move stirred a storm. The biggest labor unions in the territory came out against it, urged members not to buy at stores that adopted the visible pass-on. Their main contention: The pass-on was a price-raising gimmick, intended to gouge customers.

Some merchants, in fact, advertised the price rollback, but failed to mention immediately thereafter that a 3½% tax was to be applied. Restaurant owners warmed up the row by showing the new tax, but also increasing prices 20% to take care of wage increases.

Visible-tax advocates urge that their system makes the consumer tax-conscious, enables merchants to maintain a better price structure, and may give the consumer a tax he can deduct in figuring his income tax—a point that the Internal Revenue Bureau has not yet confirmed.

• • •

Congress Acts To Spike Distillers' Claims To Tax Refunds

Congress made motions last week that seemed to indicate it was nervous that Uncle Sam might have to hand over \$1-billion in tax refunds to the distillery industry. At issue was the \$1.50-per-gal. tax imposed on floor stocks in 1951. Schenley Industries has brought suit in a U.S. district court in Pittsburgh, contending that this tax is unconstitutional (BW—Jun.22'57,p36). Schenley is claiming some \$170-million in refunds.

The House Ways & Means Committee last week rushed through a bill that would block refunds to any distiller who passed the tax on to the consumer. The committee took this step the day before the Schenley case was argued in Pittsburgh. Some distillery representatives were surprised at what they took to be an effort to minimize a possible Schenley victory. "We didn't think we stood that good a chance," one industry representative commented.

Before approving the bill, the committee amended it to permit Schenley to revise its suit, if it wishes, to

include a claim that it did bear the brunt of the tax.

Schenley is also a prime mover behind the push to extend the period that whiskies and spirits may be held in bond without paying the federal tax. A House-passed bill would increase the present 8-year bonding period to 20 years, but not extend the age that the distiller could advertise.

• • •

Merger Gives Magazine Publishers The Advantages of a Common Pool

Magazine publishers took a step last week to shore up their industry, some of whose members have had their troubles of late (BW—Jan.19'57,p88).

The Magazine Advertising Bureau and Magazine Publishers Assn. will merge into one association, under the MPA title, next Jan. 1. Eventually, it is expected that Publishers Information Bureau will also come in under the common umbrella.

The merger has the obvious advantage of providing a common source for information, research, promotion, and the like. The combined advertising sales and promotion activities will be supervised by a 12-man committee, appointed by MPA Chmn. Ford Stewart, of the Christian Herald. Stewart and MAB Chmn. William B. Carr, of McCall Corp., promised a new information and promotion program soon.

• • •

Advertisers Race to Book Time As Britain Succumbs to Commercial TV

Commercial TV appears to have made the grade in Britain. A year ago, program contractors were offering special inducements to sell their medium to advertisers. Now it's the advertiser who is racing to book time for 1958.

Figures published last week in the Financial Times of London tell the story. Average monthly outlays for TV advertisers were roughly \$4.7-million in the period running September through December, 1956. For the January-through-May period this year, these monthly averages came to well over \$6.5-million. **The London area reported a 24% gain; the Birmingham region a 28% gain, and the North a 63% gain.** The last figure, though, must be discounted because Leeds was not operating in September and October.

The increase in the number of sets in use goes far to explain the growth. In May, 1955, before the days of commercial TV, there were 4.6-million licensed sets. By the end of May, 1957, the count had jumped to 7.1-million. Allow for unlicensed sets and for non-domestic sets, and it's figured that about 45% of all British households have TV.

There's a catch to these figures from the advertiser's point of view. Not all TV sets can get commercial programs, but the fastest growth in set sales is in areas that commercial TV does reach.

Program salesmen are now talking gross revenues of \$140-million by 1960—compared with \$84-million this year, and \$33-million last year.

Pure Silicon Gets a Recruit

● W. R. Grace & Co. is importing the Pechiney silicon refining process from France.

● It expects to turn out 20,000 lb. a year of transistor-grade silicon of the highest quality, and of a uniformity that other methods have not achieved.

● The market for this top raw material for transistors is expected to multiply many times over in the next few years.

W. R. Grace & Co., which started as a shipping company and now has a girl in most every port of the chemical industry, is finding a new love: the production of ultra pure silicon for the electronics industry.

It's a nice field to woo. High purity silicon is the best available raw material for transistors; and these tiny semiconductors—which amplify low voltage electric signals—are the fastest growing part of the electronics trade. Try this statistic for size: Last year, transistor sales were an estimated 12.5-million units; in 1965, trade sources expect them to reach 500-million.

As for high purity silicon, here's how the trade roughs out its economics. You build a \$1-million plant, install a small staff, and start turning out between 20,000 lb. and 40,000 lb. a year. Depending on the amount, and especially on the degree of purity, your gross should range from \$6-million to \$12-million. On that, the profits should gladden a treasurer's heart.

• **Uniform Quality**—W. R. Grace thinks its going to be in the richest pasture of the silicon field. It's working in partnership with Pechiney, the French chemicals and metals company. And Pechiney has developed a method for achieving a very high degree of purity—in a grading that runs from \$980-a-lb. ceiling price down to \$100 a lb. for the lower grades usable in solar batteries. The standard transistor grades cost something above \$300 a lb. The Grace-Pechiney plant, under the direction of Grace's Davison Chemical Co. Div., expects to produce 20,000 lb. a year. Not only is this production of very high grade, but the Pechiney process is said to give a far more uniform quality than has been achieved by others.

Incidentally, the site of the plant has not been picked. This picking presents quite a problem. Transportation, markets, raw materials don't mean much, but airports might. Boron is the chief curse of high purity silicon, and if you

put your plant near an airfield where the planes might use boron-based fuels, the exhaust fumes could affect the infinite purity of your product.

• **Rest of the Field**—No matter where it goes, the Grace plant will be facing lively competition. Industry sales were estimated at only 7,000 lb. last year, but available capacity is many times greater. Du Pont, probably the biggest producer up to now, has a 50,000-lb.-a-year plant at Brevard, N. C. In Dallas, Texas Instruments, Inc.—the largest maker of silicon transistors—does its own processing. Eagle Picher Corp., a large producer of the rival transistor material, germanium, started producing silicon two months ago at Miami, Okla. Sylvania Electric Products Corp. purifies silicon for its own use and for sale. These last three won't talk about capacity, except to say they're ahead of the market.

Grace, to gain a toehold in this market, will sell silicon purified in France by Pechiney until it can get the new U. S. plant into action. Grace officials won't specify prices except to say they will be competitive. That's still vaguer than it sounds, for the various purifiers of silicon don't even use a common language in grading their product. And a producer doesn't know, when he starts a batch, what grade it will turn out to be, hence what price it will command.

• **Chemical Process**—The easiest way to thread this mass of complexities is to start at the beginning, with a batch of silicon ore—probably dioxide—which is extremely plentiful. No matter what your process, it involves a series of chemical steps that first get rid of assorted trace metals, and finally go to work on boron, the chief enemy. The presence of boron, in infinitely small quantities, can reduce the electrical qualities of the silicon. As an added hazard, any chemical used in the process has itself to be of quasi-absolute purity.

Ultimately, you get the impurities

way down—11 parts of impurity in a billion parts of silicon is a relatively poor grade. Du Pont's highest grade has three parts in 1-billion, yet the \$360-a-lb. price it commands is a long way from the premium.

When the batch is finished, you test it. This has to be done electrically, since no chemical test could measure the tiny amount of impurity. The electrical test works because even the smallest impurity impairs the electrical properties of the silicon.

If the batch tests out to a relatively inferior grade there is nothing to do but classify it down and sell it for what it can bring. It has not been practicable to rerun a poor-grade batch and bring it nearer to heart's desire.

• **Batch Sales**—As a result, industry practice tends to get one buyer to take an entire batch, which at least assures him of uniform quality for that batch. The price, of course, is set by the quality.

No matter who is selling it, transistor-grade silicon remains one of the most expensive of all industrial raw materials. What's more, nobody seems to care very much.

• **Who Cares?**—From the point of view of the customer, there's little reason to press for cheaper silicon. The amount of silicon that goes into the tiny button of a rectifier or the even smaller heart of a transistor is so minute that it constitutes a very small part of the price of the device. From a single pound of silicon you can cut thousands of the squares that are used in transistors; so the silicon adds only a few pennies to the cost of a device whose retail price may top \$10. What the fabricator wants is quality and uniformity; price doesn't bother him.

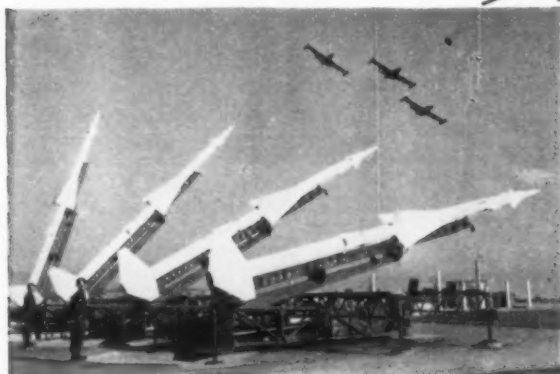
The purifiers of silicon seem to feel the same way about it. Their step by step removal of assorted impurities is far too complex to leave them much time or urge for economizing. Of all their problems, perhaps the most pressing has been the achieving of some semblance of uniformity from batch to batch. And that is precisely where the Pechiney process is said to have made a giant stride—not a true technological breakthrough, but certainly a massive improvement of technique.

• **Earlier Hookup**—This isn't the first time that W. R. Grace has hooked up with Pechiney. In 1952, the American company adopted a Pechiney process for making ammonia and urea. A plant was built at Memphis, and is now exceeding its rated capacity of 55,000 tons a year. **END**

Why **DOUGLAS** Came to **NORTH CAROLINA**



Business Leader and Businessman Governor. Famed aircraft builder Donald W. Douglas (left) finds a fellow industrialist in North Carolina's Governor Luther H. Hodges.



NIKE-AJAX Missiles built by North Carolina's new Douglas Aircraft Company Charlotte Division.

Douglas Aircraft established a Defense Division plant in North Carolina in 1955 to produce, with Western Electric, the latest design NIKE guided missiles.

"We of Douglas found numerous economic and site advantages in our move to Charlotte..."

Donald W. Douglas, President
Douglas Aircraft Co., Inc.

Present plant work force of 1000 filled from over 20,000 applicants.

New employees adapted quickly to operations requiring high skills with amazingly low turnover.

The universities of North Carolina provide a continuing source of engineering and administrative talent as well as advanced research facilities.

"Many southern boys who are trained at excellent engineering schools have wanted to return home... we are doing very well here in attracting engineers to our plant," said Sheldon P. Smith, General Manager Charlotte Division, Douglas Aircraft Company.

A favorable industrial climate for the long range future stimulated by a businesslike state administration.

A friendly community welcome from a progressive people of enlightened interests in education, recreation, medicine, the church and cultural arts.

"We moved 40 families from California to North Carolina," says Mr. Smith, "completely across the country. After 18 months not a single one has even mentioned a possible transfer back West. We think that is simply amazing."

North Carolina's new tax structure just enacted is one of the most modern in the nation. If you would like to know more about dynamic, forward-marching North Carolina, you are invited to communicate with its Businessman Governor, Luther H. Hodges, in Raleigh.

There's a place for your plant, too, in **NORTH CAROLINA**

A Radiation Source For Elementary Use



BEAM SCANNER of Van de Graaff particle accelerator directs high-speed particles at material passing beneath on trays.



IRRADIATED PLASTIC is stronger, won't shrivel when boiled. Industry is just beginning to learn how to use radiation.

High Voltage Engineering's Van de Graaff particle accelerator (pictures), well-established in college labs, is fast finding favor with industry and research organizations.

DEMAND for radiation equipment has developed tremendously since the advent of atomic energy. Colleges, medical institutions, and research organizations all over the world are shopping for radiation sources. And industry—particularly in the drug, chemical, and petroleum fields—has begun to use radiation as a processing tool.

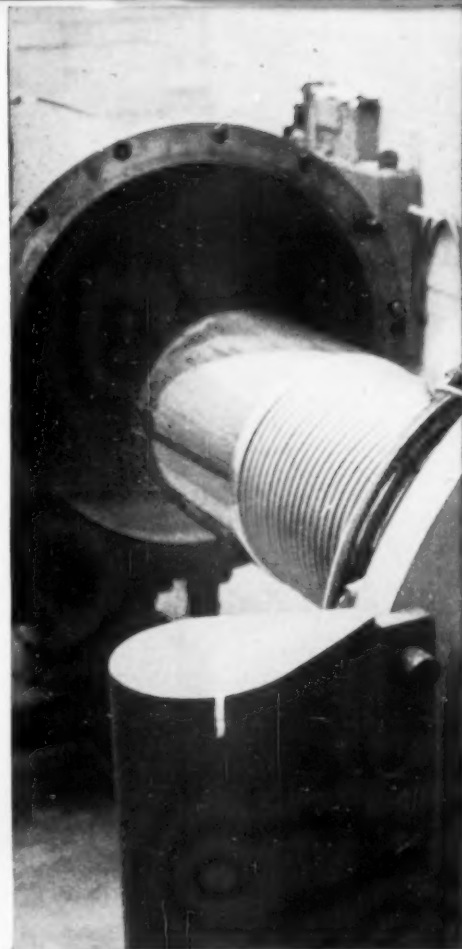
• **Best Seller**—The fastest seller among the radiation sources is the Van de Graaff particle accelerator, a modest piece of equipment when compared with the Atomic Energy Commission's giant synchrotrons, but adequate for elementary research and training purposes. The Van de Graaff machine is produced by High Voltage Engineering Corp., a Massachusetts company that was organized 11 years ago by a group of college professors.

In 1947, its first year of production, High Voltage chalked up a \$31,000 loss. But it has had no red-ink years since then. Sales climbed from \$1-million in 1950 to \$2.8-million last year. This year High Voltage expects them to hit \$4.1-million. The company's order backlog is approaching \$8-million.

Practically all of this growth can be attributed to sales of the Van de Graaff machine. The company also makes a linear accelerator, potentially a higher energy unit than the Van de Graaff, but its principal marketing effort is still going into the top product.

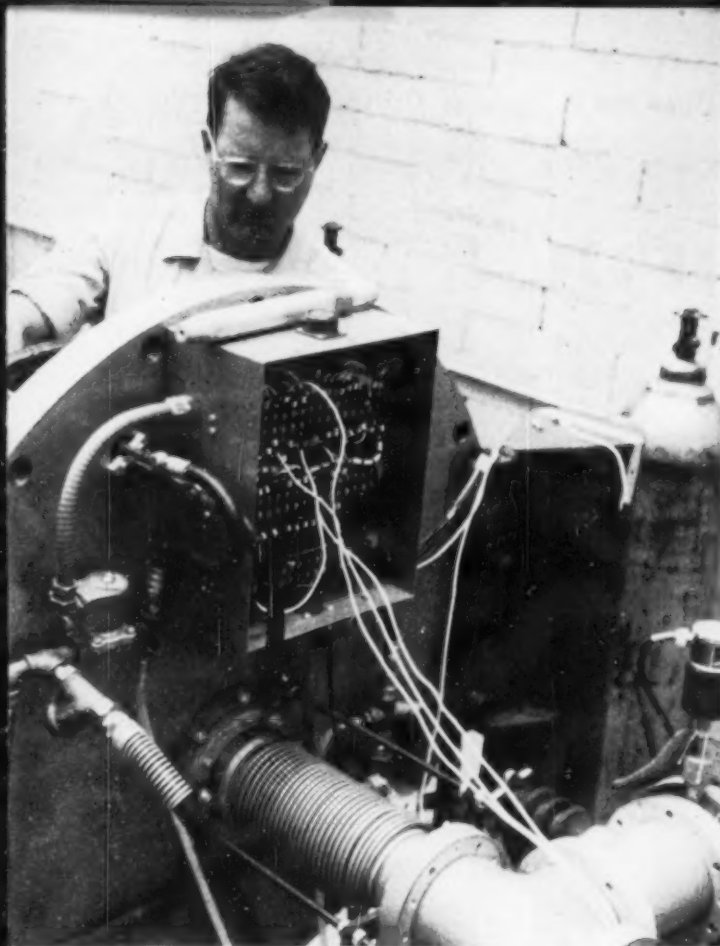
• **Purpose**—The Van de Graaff is just one of a large family of particle accelerators. All are designed to slam atomic particles, such as protons, electrons, and alpha particles, against a target with sufficient force to penetrate the target atoms. In a variety of ways, all use electrical or magnetic force to get particles moving at very high speeds.

Whereas AEC's big machines propel particles with energies of billions of volts, the Van de Graaff has energy ranges from 1-Mev (million electron volts) to 10-Mev. The giant atom smashers are worth their multimillion dollar costs because they are the best available tool for pure research of the

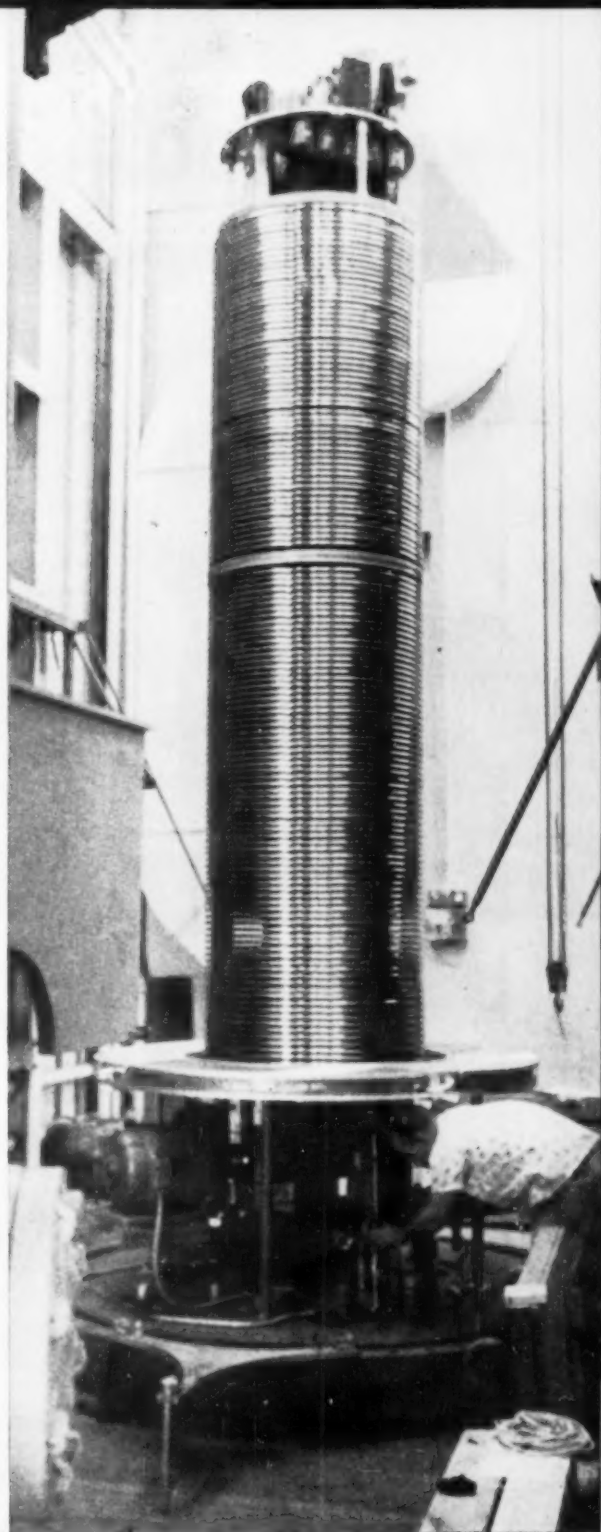
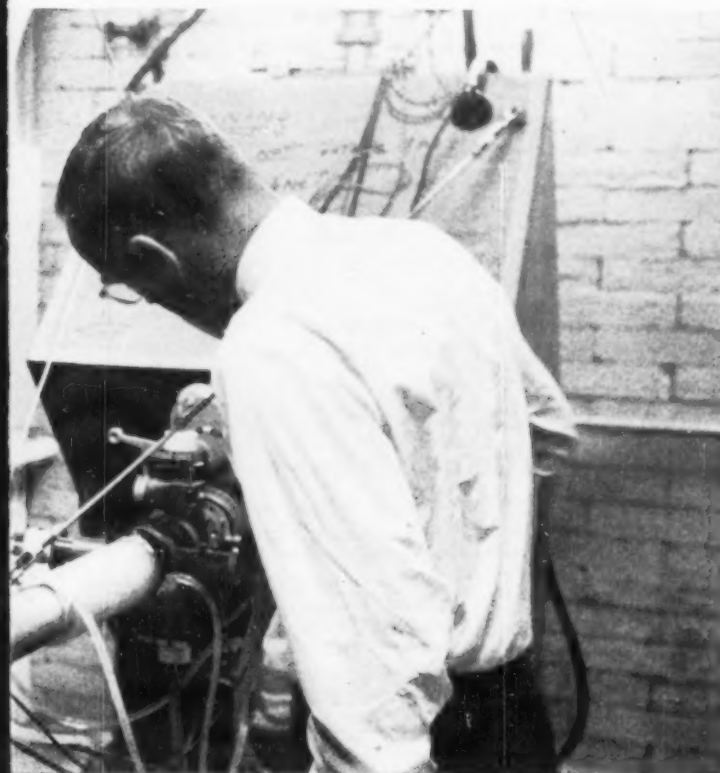


PARTICLE ACCELERATOR being built





by High Voltage for RCA Labs is a 1-million-volt machine.

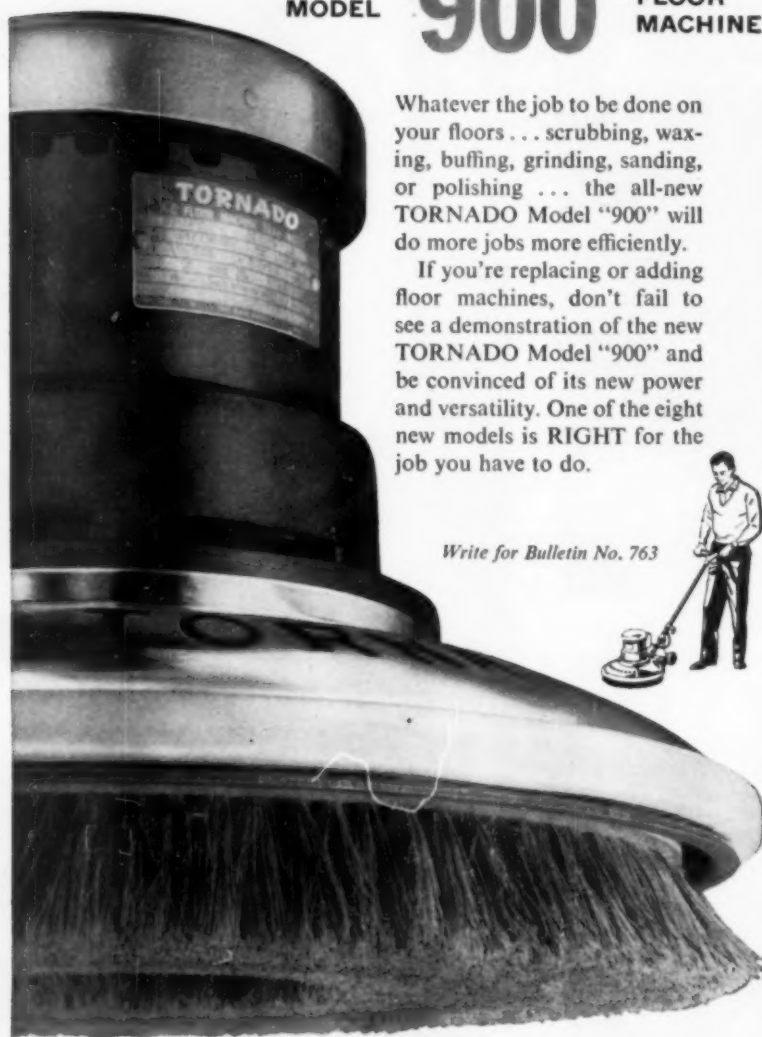


ALMOST COMPLETED is this 6-million-volt accelerator ordered by Westinghouse Electric Corp. Column will be capped by aluminum dome.

THIS IS A MAGNET for a 3-million volt Van de Graaff accelerator ordered by Weizmann Institute in Tel Aviv. Magnet directs particle beam at the target.

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MODEL "900" FLOOR MACHINE



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Write for Bulletin No. 763



NEW POWERFUL MOTORS New heavy duty, capacitor start motors with horsepower ranging from 1/2 H.P. to 1 H.P.

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most advanced type. But the Van de Graaff, which projects either positive ions or negative electrons and indirectly produces neutrons, gamma, and X-rays, makes an excellent machine for elementary research, for training the budding physicist. It is also in demand for industrial use.

• **How It Works**—The Van de Graaff is one of the easiest to understand of the many types of particle accelerators. The machine builds up a tremendous electric charge on a metal ball. A tube through which particles are to be accelerated is just below the ball, and charged atomic particles are introduced at the near end. Since like electric charges repel each other the particles are pushed through the tube at high speed. Then the beam of particles is diverted by magnets at the other end of the tube and slammed into a target—which is the purpose of the whole operation.

The trick in the Van de Graaff machine is the method of putting a high voltage charge on the ball. It is done by mechanical force—literally by pushing electricity onto the ball. A long moving belt of insulating material runs to the ball from a simple generator that produces low voltage static electricity.

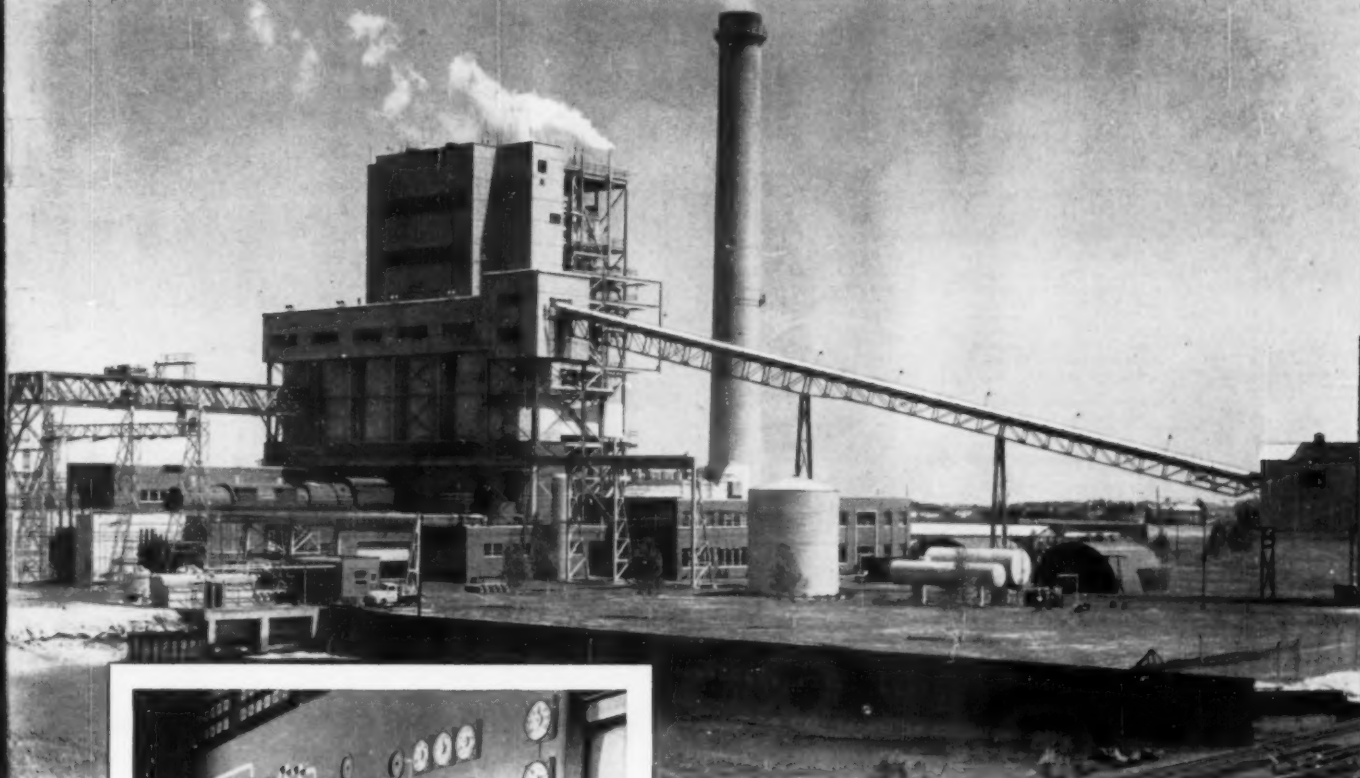
The generator puts charges onto the surface of the belt, and as the belt moves these are carried to the ball and deposited there to increase its electric charge. The higher the charge, of course, the more the advancing charges are repelled by the ball and so the harder it becomes to move the belt; in effect, the high voltage charge is built up by the work done by the motor that is moving the belt.

The linear accelerator being built by High Voltage and other companies uses much more subtle methods to accelerate particles. In ways that it takes an expert to understand the linear accelerator uses high frequency waves much like radar to drive the particles.

• **The Impetus**—Decades ago scientists first smashed the atom in crude prototypes of today's particle accelerators. This made the accelerator the most valuable tool in the hands of the nuclear physicist. But smashing the atom led to the discovery of the fission reaction and to development of the atomic reactor to control this reaction. Scientific and popular interest then attached to the reactor.

Greatest impetus to the worldwide interest in reactors was the Geneva conference on peaceful uses of the atom in 1955. This developed an immediate demand for reactors, both for research use and for the production of electric power. But many organizations clamoring for reactors suddenly discovered that operation and maintenance of

Electrifying news about America's fastest growing area...



Edward F. Barrett, LILCO's Chairman of the Board—for whom the new station was named—throws the switch coupling station to the company's transmission network.

C-E Again Helps Satisfy A Skyrocketing Demand For Power

The postwar years have seen the Long Island Lighting Company challenged to meet the electrical demands of the fastest growing area of its size in the United States. The new Edward F. Barrett Station, shown above, represents this progressive utility's recently dedicated addition to the system's generating capacity. Ten years ago, Barrett's single generating unit could have provided power for *all* of LILCO's customers. Today, however, it accounts for only one-fifth of the capacity of the Company's five generating stations. And, with an eye to the future, provisions have been made to allow expansion of the ultra-modern Barrett plant to *six times* its present capacity.

Combustion Engineering has played a major part in LILCO's phenomenal growth. In the past ten years, the utility has purchased eight large C-E boilers—seven of which are now in service. When the eighth unit goes into service next year, these boilers together will supply steam to generate nearly 900,000 kilowatts.

This record of *continued* acceptance by one of the country's outstanding utilities is further evidence not only of Combustion's leadership in steam generation but also of its ability to serve you—whether you need boilers for a giant power station or a small industrial plant.

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AMONG THE THOUSANDS OF USERS...

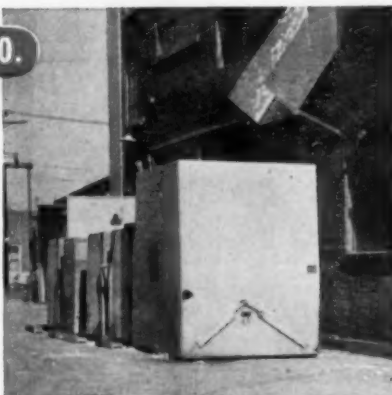


This low cost, efficient method of materials handling also serves the ceramic, drugs and surgical, and food industries...

THE TRENTON POTTERIES CO.

A subsidiary of the Crane Co.

Here is one of the large companies in the ceramic industry that, following the success of its original purchase of Dempster-Dumpster equipment in 1955, has added additional equipment to meet expanding requirements at its Trenton, N. J. plant. In addition to handling debris, floor sweepings, scrap clay, plaster moulds and glost wave, Dempster-Dumpster Detachable Containers are also used as settling beds for clay waters; the slurry water going from container-to-container via pipe couplings welded in the sides of the containers.



ELI LILLY AND COMPANY

Also noted for its plant-wide cleanliness and sanitation, Eli Lilly and Company attributes much of the success of its efficient, sanitary handling of bulk materials to the Dempster-Dumpster System. In addition to the fire hazards, the unsanitary waste material accumulation and collection with conventional methods, the high cost of handling constitutes a further problem for many manufacturers. Thousands of users like Eli Lilly and Company have found the Dempster-Dumpster System helps to solve all these problems!



STOKELY-VAN CAMP, INC.

Here is one of the most recent companies to install this low cost, sanitary Dempster-Dumpster System of materials handling. Photo shows truck-mounted Dempster-Dumpster dumping, by means of hydraulic controls in cab, one of the many Dempster-Dumpster Detachable Containers now in use at the Newport, Tennessee plant of Stokely-Van Camp, Inc. Stokely-Van Camp officials were especially attracted to this method because of the fire-resistant containers.



Other users include The Texas Company in the refinery field, Brown Company in the paper industry, General Electric in the electrical industry, and there are others in every manufacturing industry: air craft, atomic energy, automotive, brick, cement, foundry, glass, leather, steel, etc. . . . institutions . . . cities and towns all over the world! Savings are tremendous because one truck-mounted Dempster-Dumpster serves scores of big steel detachable containers, one-after-another. There is a container available or that can be built to suit the requirements of all materials, regardless of description. And one man, the Dempster-Dumpster driver, handles them all! Capacities up to 21 cu. yds. Payloads up to and over 36,000 lbs. Ask us to forward complete literature. Manufactured by Dempster Brothers, Inc.

DEMPSTER BROTHERS, 477 Dempster Bldg., Knoxville 17, Tenn.

these machines requires highly trained personnel. Few had such staffs.

Then too, reactors turned out to be pretty costly machines. Research reactors range in price from about \$100,000 to several millions of dollars. Power reactors cost tens of millions of dollars.

• **Good Alternative**—So High Voltage plugged its Van de Graaff accelerator as an alternative. The machine already had won a reputation in university laboratories. And prices run from \$30,000 to about \$1-million.

The new demand caused sales to go way up in the U.S. and overseas. But the significant jump was in foreign orders—from areas where atomic know-how is most scarce. Last year these orders accounted for nearly half the company's sales and they totaled about \$1.2-million in the first half of 1957.

• **Research Market**—"By far the largest share of our business has come from research organizations—government laboratories, universities and medical institutions," says Denis M. Robinson, president of High Voltage.

"Every university physics department that does not already have one, wants a radiation laboratory. Universities all over the world are re-equipping. They like the Van de Graaff because it is a machine that shows the student radiation and how you can control it. Although we have made a lot of sales to universities, I don't believe we have even scraped the fringe of this market."

Last year High Voltage moved out of cramped quarters in Cambridge, Mass., into a new, \$2-million plant at nearby Burlington. Now this plant is about to be expanded because of the surge of orders.

• **Industrial Interest**—Robinson sees a major industrial market looming in the future. Already there is intense interest in the use of radiation to sterilize food and drugs, for improving chemical reactions, and for testing and measuring a wide variety of materials and equipment. Especially promising are experiments with electron radiation as a catalyst in petroleum refining.

Competition for this market, as well as for the research market, comes from radioisotopes and research reactors, as well as from other types of particle accelerators.

• **Competitive Lineup**—High cost of reactors, of course, gives accelerators a big edge. But long-lived isotopes, like cobalt 60, range in cost up to about \$12,000, and prices are likely to come down in the future. But the Van de Graaff is a source of more intense radiation, and this will be required for many industrial applications where deep penetration is essential. Further, the radioactivity of an isotope cannot be switched on and off like an accelerator, so its handling and storage require

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Nation's most modern air terminal served by power from Wagner Transformers!

The "Spirit of St. Louis" is reborn in the city's newest symbol of the air age—the dramatic new terminal at Lambert-St. Louis Municipal Airport. Built at a cost of \$7,728,000 and dedicated in 1956, it's the most modern in the nation.

Electric power for this terminal is distributed by five secondary unit substations, rated from 300 to 1500 kva. These were manufactured by Nelson Electric Company and equipped with safe, dependable Wagner dry-type Transformers. Wagner dry-type Transformers are carefully engineered to provide an uninterrupted flow of power—built to stand up under rigor-

ous 24 hours a day schedules. Wagner pioneered in the development of dry-type load center transformers, and the Wagner design is known for its great electrical stamina and mechanical strength.

Wagner dry-type unit substation transformers can answer your power needs just as they do at Lambert-St. Louis Municipal Airport. They are "Predesigned"—coordinated with the specifications of unit substation builders to save you job engineering, time, and cost. Consult the nearest of our 32 branch offices, or write for Bulletins TU-205 and TU-214 for full information.



This is the Nelson main substation at the St. Louis Airport. It is equipped with a 1500 kva Wagner Dry-Type Transformer.



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extra safety precautions and added costs.

Some other types of accelerators outstrip the energy output of the Van de Graaff. This is one reason for the 10-Mev Van de Graaff, which only recently was developed by High Voltage. Another move in the same direction, of course, is the potentially more powerful microwave linear accelerator.

• **Sales Promotion**—High Voltage maintains a rental radiation service at its plant. Use of a 2-Mev Van de Graaff is available to all comers at \$50 per hour. The machine is booked up for months in advance.

This offers a prospective buyer of a Van de Graaff a reasonably inexpensive opportunity to find out what the machine can do for him. Among the more than 150 users over the past five years have been drug manufacturers, food processors, chemicals, and plastics producers and metallurgists.

"But one of the greatest assets to our industrial business has been our numerous installations at universities," Robinson reports. "As students, scientists become familiar with our accelerators in the university lab. Then when they go into industry they want the same equipment."

• **Pioneer Inventor**—High Voltage Engineering's principal product is the brainchild of Robert J. Van de Graaff, a director of the company and associate professor of physics at Massachusetts Institute of Technology. He began developing the accelerator that bears his name in the late 1920s.

During World War II, Van de Graaff built five of these accelerators for the Navy. They were used to examine the detonating mechanisms of captured enemy artillery shells so they could be disarmed safely.

• **New Company**—Back at MIT after the war, Van de Graaff was swamped with requests for drawings and specifications from scientists who had seen the Navy accelerators. The cost of preparing so many drawings would have been prohibitive. Also, the accelerator was such a complicated piece of machinery it was doubtful that any inexperienced group would be able to build it even with the most elaborate specifications.

Van de Graaff took his problem to a friend and colleague, John G. Trump, professor of electrical engineering at MIT. Trump advised him to form a company to build the accelerator and agreed to help. The two then persuaded British-born Denis Robinson, who had been sent by his government during the war to MIT to help with radar development work, to head the company. Trump became board chairman.

Production started in rented space in the basement of a storage garage in Cambridge. High Voltage bought the entire building in 1950, outgrew it six years later. **END**



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Blickman leads in all these fields by commanding unequalled talent and tools—plus 68 years of experience in methods with metals. For detailed information on any of the above subjects, write S. Blickman, Inc., 7107 Gregory Avenue, Weehawken, N. J.

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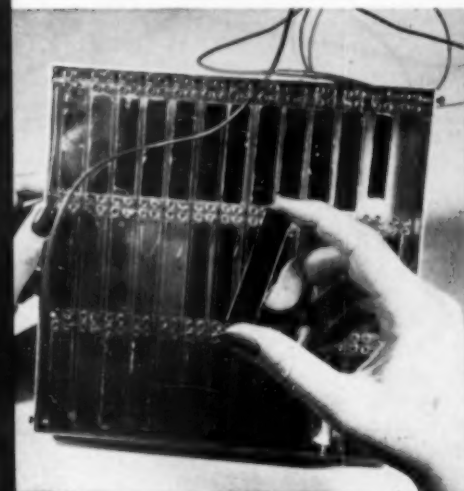
Look for this symbol of quality



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SOLAR CELL, invented by Bell Labs, consists essentially of strip of silicon.



SUNLIGHT is converted into electricity by cells, which can be linked in a series.



PHONE SYSTEM at Americus, Ga., is equipped with solar cells for test.

Solar Cell Is Ready For Commercial Jobs

Industry is finding many uses for the device that converts sunlight into electricity. And now that the price of solar cells has been cut, they are expected to make their way into a variety of consumer products in the near future.

Every day about one thousand trillion kilowatts of solar energy go to waste. That's roughly equivalent to all the energy contained in the known resources of coal, oil, natural gas, and uranium. Man is slowly learning how to catch some of this wasted energy and put it to work. One of the newest developments along this line is the solar cell, which is now moving out of the experimental stage and into a whole raft of commercial applications.

• **Discovery**—The Bell Telephone Laboratories stumbled across the concept a while back when it was working on the transistor. It discovered that small cells made of crystallized silicon would convert sunlight and, to some extent, incandescent light into usable amounts of electricity.

The Solar Div. of Hoffman Electronics Corp., Chicago, Ill., a Bell licensee, is one of the first companies to put the theory into commercial use. It is making solar cells for a number of military and industrial purposes. Very shortly a whole batch of new products utilizing the solar cell should appear on the market.

• **Price Barrier**—Up to now, says Hoffman, the solar cell has been held back by the price of silicon. Two years ago the cost of manufacturing solar cells was \$1,000 a watt. But today lower silicon prices (see page 56) and increased production of cells have brought the cost down to \$60 a watt. And Hoffman is looking forward to a cost of \$10 a watt, which would open up the market for consumer goods at reasonable prices.

At present, Hoffman's Radio Div. is making a portable that converts sunlight or incandescent light to electricity and stores it in the radio battery. And this fall the Seth Thomas Div. of General Time Corp. plans to market a solar clock that will run a month on a day's sunlight.

But primarily it is industry and the government that have been using the solar cell.

• **Industrial Applications**—Industry has found the cells most useful in control instruments. General Electric and Westinghouse, for example, are making them for such things as temperature

detectors for controlling the rate of withdrawal of ingots that have been heat treated. When the proper temperature is reached, the cells automatically start the machinery that removes the ingot. If this device isn't used, an operator has to examine the ingot and remove it manually. The cost of a solar cell for a detector of this type is low, about \$50, but the instrument costs \$25,000.

In another application, Barrett-Gravens Co., Northbrook, Ill., uses the solar battery to guide a remote-control tow truck. The truck had followed a wire track along the floor. But the company replaced this with a white line, using a solar cell to guide the truck along the line from the line's reflection of light. If the truck should break away, there's no spark, which could prove dangerous around volatile fumes.

• **Phone System**—Bell Labs has used solar cells successfully to operate an experimental telephone system in Americus, Ga. (pictures). Several cells were linked together on a square plate. The joined cells converted enough solar power directly into electrical power to permit the transmission of voices through the lines. Excess energy was stored in batteries for use at night. Bell reports that the cells delivered 100 watts of power per square yard of cell surface. That means 11% of the solar energy was being converted into electrical energy. This efficiency is about the same as a good gasoline engine.

• **Military Uses**—The Air Force is using solar cells in high altitude balloons. They take the place of heavier electrical power equipment and need less space. The Coast Guard uses them at Long Beach, Calif., for coastal lights that are hard to get at. The Forestry Service is putting the cells in power relay stations. And the Signal Corps recently announced it has perfected a solar cell that can power the instruments in the earth-circling satellites. The first satellites to be launched probably won't use them, but it seems certain that the later ones will.

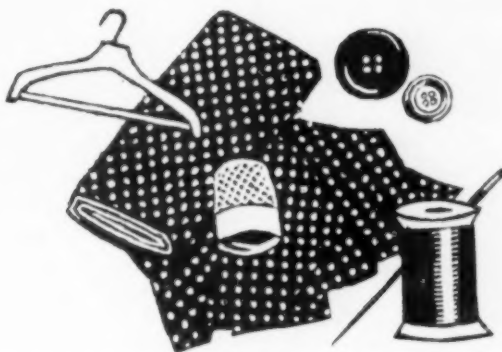
• **How It Works**—Basically a solar cell is a slice of silicon crystal, usually wafer thin, with a hollow center. One side of the cell has a free positive

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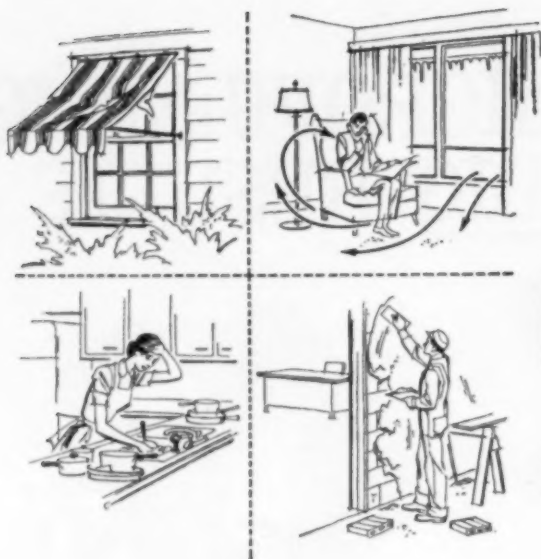
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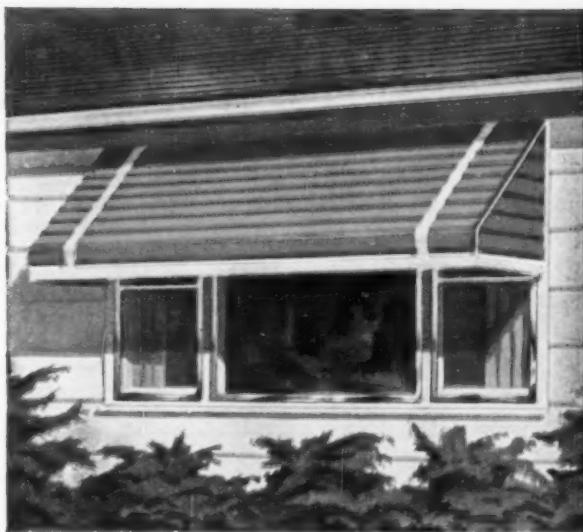
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SOLUTION: Awnings made from aluminum can never fade, rust or rot. Fabrication is fast, inexpensive, for a wide range of styles and colors. And aluminum awnings offer consumers cooler interiors, lower air conditioning costs, long-lasting beauty. Aluminum eliminates deterioration due to rust or rot.



PROBLEM: Lower heating and cooling costs with better insulation.

SOLUTION: Wrap top quality bulk insulations with aluminum foil. Foil reflects heat to keep indoor temperatures lower in summer; it helps cut heat losses in winter; it adds moisture-vapor protection. Foil adds these TRIPLE PLUS® features to make the best bulk insulations even better.



PROBLEM: Make easy-to-clean, easy-to-handle, thermally efficient cookware.

SOLUTION: Cooking utensils and small appliances of aluminum offer more convenience to users—production and profit advantages to manufacturers. Aluminum provides selling points such as better heat dispersion, light weight, resistance to stains, easier cleaning, plus lasting, bright appearance.



PROBLEM: Produce movable walls that are sturdy, attractive, easy to move.

SOLUTION: Lightweight panels of high-strength aluminum offer maximum design flexibility, greater portability and fine appearance in movable partitions. Because aluminum will not rust, these handsome partitions may be used without additional finishing—even in moisture-exposed areas—or coated to match color schemes.



BY THE MAKERS OF REYNOLDS WRAP

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CREATORS OF SYSTEMS AND EQUIPMENT FOR MULTIPLE ADDRESSING AND MARKING

"... five days' sunlight would take care of a home's electricity for a year ..."

STORY starts on p. 66

charge and the other negative. An impurity is injected into the hollow center. Light hitting the impure center forces free positive and negative charged particles into the matching side of the silicon crystal. This sets up a voltage across the crystal. The power can be used immediately or stored for later use in batteries.

The cells last indefinitely because they have no moving parts and aren't damaged by the light. Keeping the surface clean is the only maintenance required. That's why it's practical to use solar cells in remote places such as mountain tops and leave them to work for long periods of time.

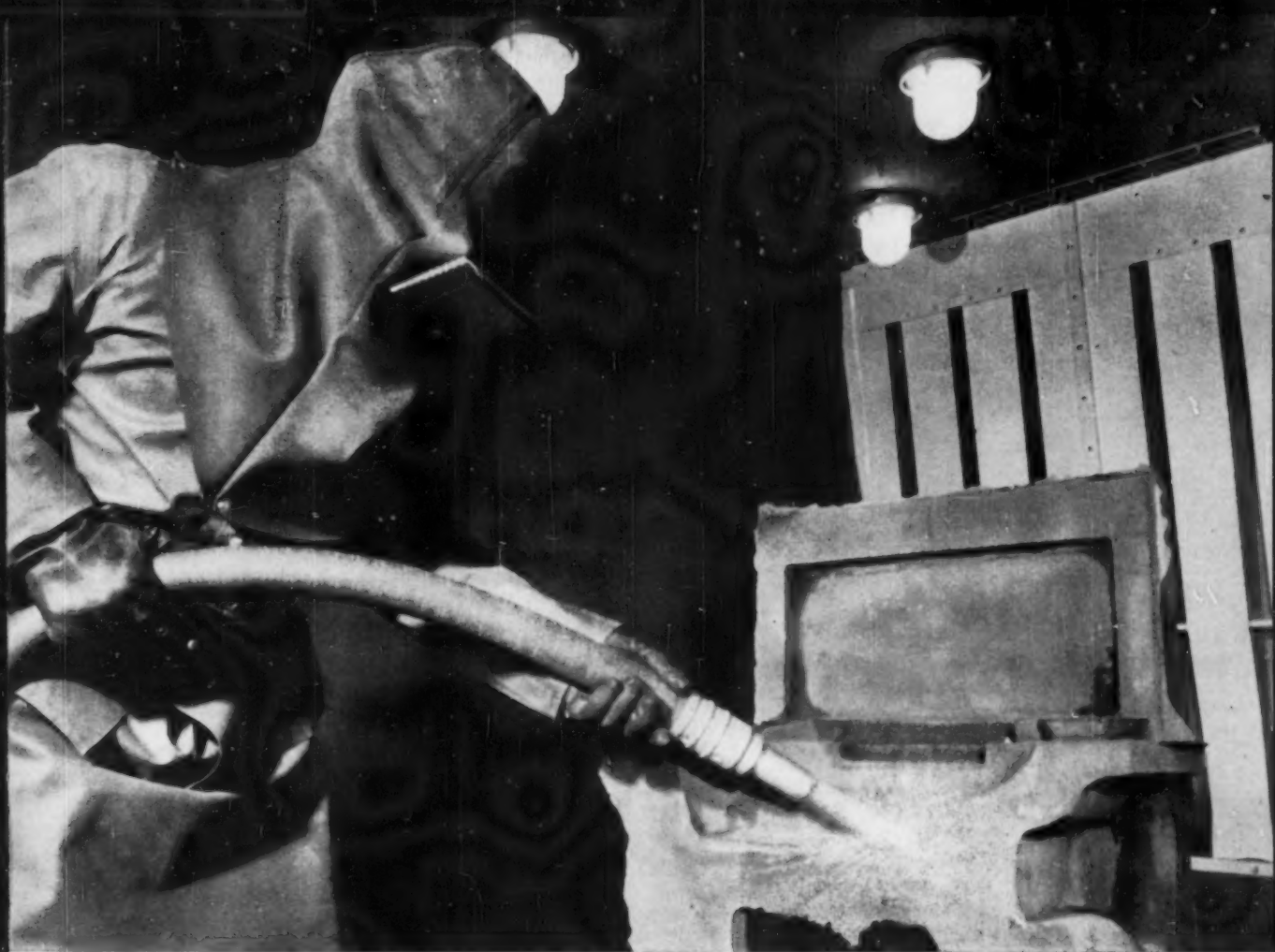
• Silicon Is Best—Other elements have been tried in solar cells. Of these, selenium is the most common. It costs less than silicon, but its efficiency runs about 1%, compared with 14% for silicon. And Bell expects to get as much as 22% efficiency from silicon. Other elements might be used, but their rarity and cost eliminate them.

Now that the price of solar cells is coming down, it's estimated that they will be as common as vacuum tubes in about 10 years. In the immediate future, it's possible that phonographs, fans, or even lawnmowers may get their power from solar cells utilizing the energy from sunlight or a strong light bulb.

More unusual applications also are under consideration. Los Angeles and San Francisco, for instance, are thinking about using solar cells to stop parking meters when a car pulls out. Hoffman is designing a prototype device. The company estimates that the increase in revenue from a meter that records only the time of the person who actually has inserted the coin would pay for the equipment in two years.

• Solar-Powered House?—Hoffman is also talking about a house that gets all its power needs from silicon cell shingles. The shingles would generate power, which would be stored in batteries. Five days of sunlight would take care of all the electrical requirements of the house for a year, the company says.

Another application is in the dream stage. That's a solar convertible car. Like the industrial remote-controlled tow truck, it would use a solar cell to guide it down a white line. Since no one would be required to steer the car, all the riders could sit comfortably in the back seat and, perhaps, watch solar-powered television. **END**



Steam Supply by B&W

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Rockford Plant Saves Money Despite Coal Costs Rise

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Most boilers consume their first cost every year, in fuel. For many boilers, the fuel bill will add up to several million dollars during their normal life expectancy. Efficiency can drop 2 or 3 per cent, or even more, and when this happens, a substantial sum of money literally "goes up the stack." Sound engineering, proper maintenance and servicing can prevent this—turning potential losses into actual savings.

That's why you save on steam costs with a B&W boiler. Long-range sustained economy is the natural result of B&W's top-level engineering and consistent high performance. A national network of plants and engineers—supported by more than a century of steam generating experience—is at your service. Talk over your steam

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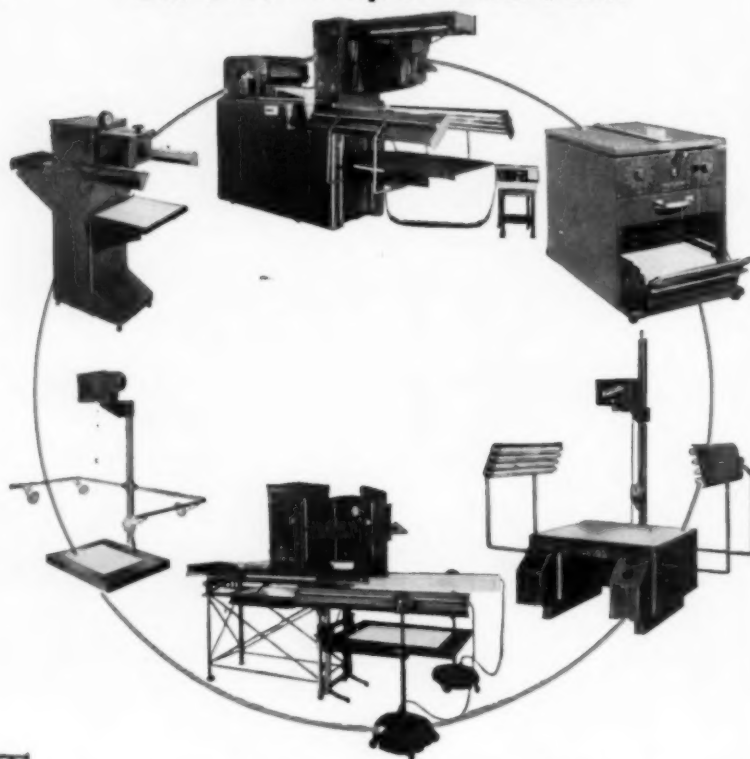
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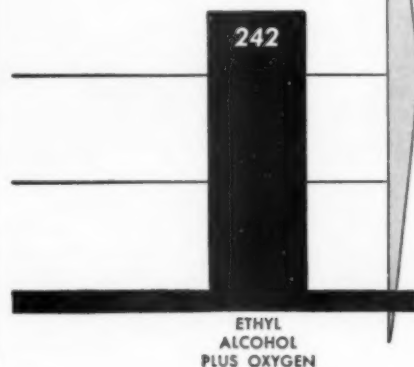


RESEARCH

The Fuels of

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theoretical specific impulse*

Today's Workhorse



Breaking

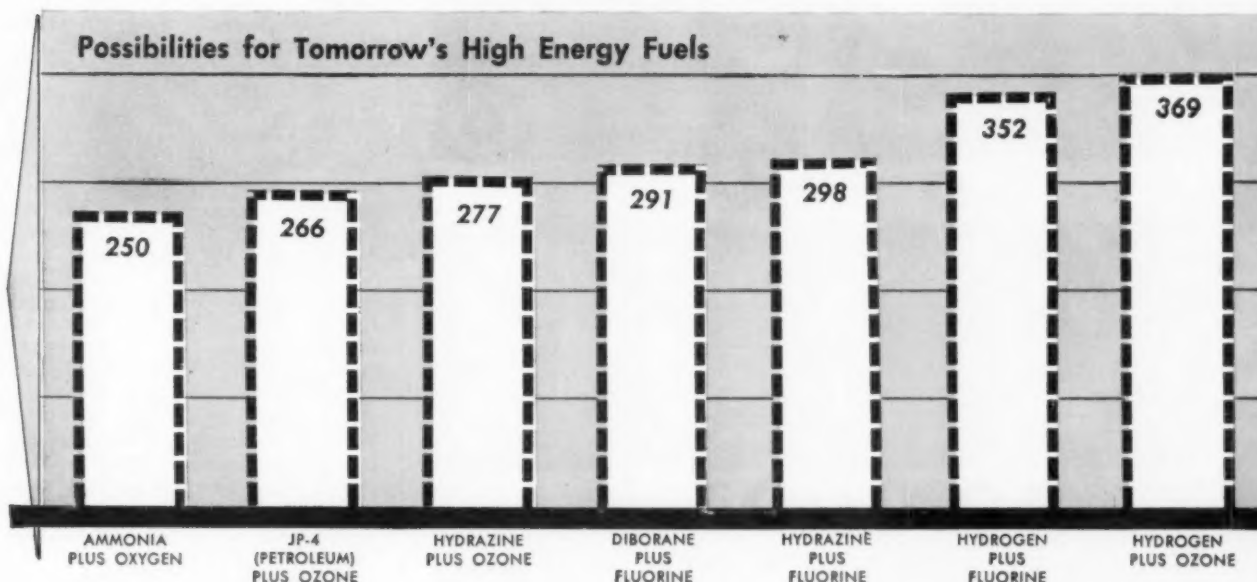
All the new rocket and jet fuels are dangerous to make and to handle. But that's the only way to get the thrust that's needed.

WITH LAST WEEK'S laying of a cornerstone at Model City, near Niagara Falls, N. Y., the exotic fuels industry came out of the laboratory. From the cornerstone will rise a \$40-million plant, owned by the government and built and operated by Olin Mathieson Chemical Corp. for the Air Force, to produce HEF-3, a boron-based chemical fuel for jet engines.

Thus, Olin Mathieson will become the first company to produce, on a commercial basis, a liquid fuel for air-breathing engines which falls in the class technically called "high energy." But HEF-3 won't have the field to itself for long. Coming along behind it is a parade of high-energy compounds, to meet the special propulsion demands of the future (chart).

The plant, scheduled to start up in January, 1959, will be patterned on a \$5.5-million semi-commercial company owned plant at Niagara Falls that began producing only last month. Both in turn are the outgrowth of a bench-sized pilot plant that Olin Mathieson built at Malta, N. Y., in 1952 for the government, and a larger pilot plant at Niagara Falls last year. The company

the Future



Through to Hotter Propellants

is also building a plant to supply the Navy.

• **Not Far From Lab**—Thus, within seven years of building its first laboratory model, Olin Mathieson will have a commercial plant operating. According to the company's announcement, the new plant will have 3,200 times the capacity as the 1952 bench model. Capacity figures are veiled in military security regulations, but trade talk hints of around 3½-million to 5-million lb. a year.

Making such potent fuel in such quantities is a ticklish business, and roughly half of the \$40-million cost of the Model City plant is allocated to safety equipment. But the potency of the finished fuel may add 35% or 40% to the performance of turbojet engines—a gain that can be taken in greater speed, longer range, or more payload.

This fuel gives high energy both for its weight and for its volume. In British thermal units, the measure of work value of heat, diborane (the basic ingredient of HEF-3) is rated at 32,000 Btu. per pound, compared with 18,000 Btu. for JP-4, the highly refined form of kerosene that is the commonest jet fuel today.

And HEF-3 takes up less room as well as being lighter for an equivalent amount of power. Fuel tanks can be smaller; weight and volume of fuel cut less into payload. Moreover, vaporized

HEF-3 is denser than conventional jet fuels, hence less susceptible to flame-out—the terror of jet pilots.

• **Need New Engines**—According to unofficial sources—the Air Force won't talk on the record about the fuel and its applications—none of today's operational jet engines will economically use high-energy fuel, and the new stuff will be produced at first only for test purposes. But the Air Force and the Navy are said to be designing jet engines that can use either petroleum-based or boron-based fuel. Some say it wouldn't be feasible to convert present engines.

You can get conflicting reports about how the airmen plan to take advantage of high-energy fuels—whether it's to extend operating range or to give temporary bursts of speed. Because of their poisonous exhaust products, no one has yet figured a way to use these fuels at low altitudes or on landings and take-offs.

• **On Ground Floor**—Olin Mathieson's commercial production of HEF-3 two years hence isn't the only sign of activity in fuels research. American Potash & Chemical Corp. is running an experimental decaborane plant at Henderson, Nev., and Callery Chemical Co. (jointly owned by Mine Safety Appliances Co. and Gulf Oil Corp.) is building a \$38-million high-energy fuels plant for the Navy at Muskogee, Okla.

Dozens of other companies are also

working in the lab on ideas for producing high-energy fuels or supplying the raw materials for them.

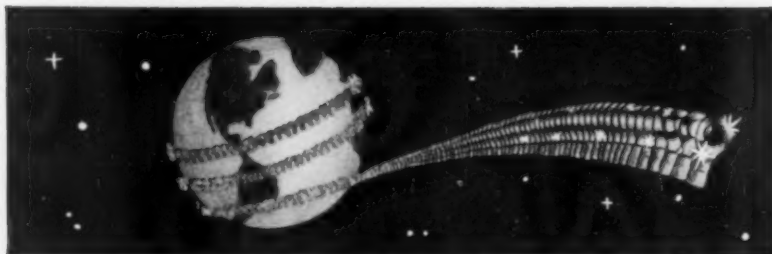
• **Need New Definition**—This revolution in fuels has reached the point where you have to look closely at what you mean by a "fuel." The simple, traditional answer—something that will burn—is no longer meaningful. For the newer fuels don't burn in the accepted sense. They react chemically in other ways.

Up to now, the commonest aviation fuels have been gasoline and kerosene, which burn in combination with the oxygen in the air. Their vogue is based on the fact that they are reasonably plentiful and cheap. But scientists have long known that many other chemical interactions yield much more energy, often without the presence of oxygen at all.

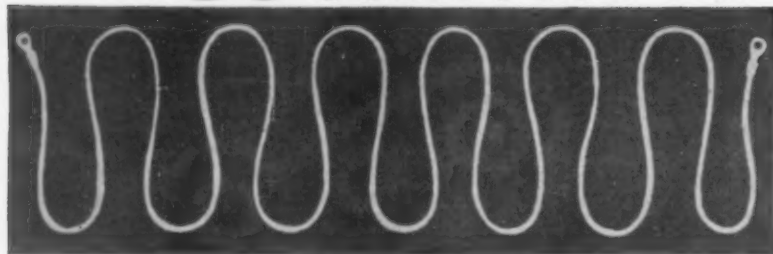
The new term "high-energy fuels" thus includes a variety of solids and liquids, and some that are gases at normal temperatures and pressures. It covers just about everything except nuclear "fuels" and solar energy, as long as it delivers at least 25,000 Btu. per lb.

I. The New Fuels

Hydrogen has the highest known heat of combustion—52,000 Btu.—and it is light and relatively cheap to pro-



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duce. In its liquid form, it will be a prop of the high-energy fuels business, along with liquid oxygen. But it has crippling drawbacks for wide use by itself as a fuel:

- It is normally a gas, can be kept in a liquid state only at temperatures below minus-423F. Yet it is suitable as a fuel only in liquid form; as a gas it takes up far too much storage space.

- The compressing and cooling equipment to keep it in liquid form—and to keep the engine from burning up at the tremendous heat of combustion—would have to be too heavy and elaborate for general use.

Carbon, on the other hand, stands relatively low on the heat of combustion scale, at 14,500 Btu. The combinations of hydrogen and carbon known as hydrocarbons fall somewhere in between, gaining various degrees of hydrogen's high combustion heat. Kerosene, for example, is rated at 18,500 Btu.; it contains too much carbon, though, to be a high-energy fuel. And gasoline contains even more.

Therefore, the drive is on to find other elements that will serve the same purpose. Boron and fluorine and their derivatives look like strong candidates; aniline, hydrazine, oxygen, and fuming nitric acid, as well as JP-4 (the jet-fuel form of kerosene), are already being produced in tonnage lots.

- **Specific Impulse**—Researchers are still looking for fuels with even greater specific impulse—the pounds of thrust that a pound of propellant yields each second (pages 72 and 73). Fuels for outer space flight and for intercontinental ballistic missiles (ICBM) must have far more specific impulse than is now available.

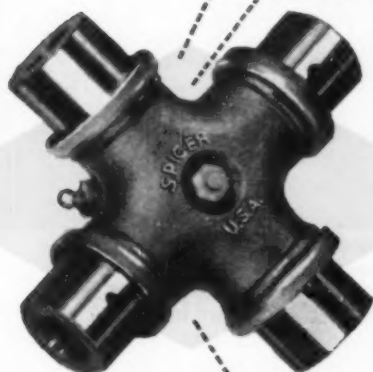
There is an energy limit, well recognized by scientists, beyond which no chemical propellant can ever go. This limit of about 400 pounds thrust per pound of propellant per second is set by inexorable laws of chemistry and physics. But there is still plenty of room for improvement within this limit.

The workhorse of today's more advanced rockets, for example, is ethyl alcohol burned in oxygen. It has a theoretical specific impulse of only 242 (pages 72 and 73). Ammonia burned in 100% ozone (an unstable form of oxygen) has a specific impulse of 267; hydrazine burned in pure ozone is rated at 277. But this 100% liquid ozone can't yet be produced in commercial quantities.

- **Two Components**—Liquid propellants are made up of two principal parts: (1) a fuel in which heat energy is locked up and (2) an "oxidizer" that will combine chemically with the fuel to release the heat. In the classic definition, the oxidizer is oxygen, and the chemical reaction is combustion. In many modern cases, no oxygen is



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AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

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present and the reaction is different from burning, but the substance that reacts with the fuel is still called an oxidizer.

For the fuel, it is desirable to choose materials with low molecular weights. The lighter the particles that fly out the back, the better a rocket works. The heavier elements, such as sodium, magnesium, aluminum, silicon, and chlorine, tend to diminish the specific impulse. That's why researchers are paying so much attention to lithium, beryllium, and boron, with their molecular weights of 7, 9, and 11, respectively.

For the oxidizer—some containing oxygen and some not—the choice is also wide open among several candidates. Propellants using nitric acid or hydrogen peroxide as an oxidizer tend to have a specific impulse of around 240; with liquid oxygen, around 265; with liquid elemental fluorine, the highest of all—about 325.

II. Dangerous Stuff

In exploring the fuels and oxidizers that are, in theory, the most promising of all, science is playing with something worse than dynamite. Such metals as boron and beryllium release tremendous heat, but this explosive energy must be tamed to produce useful power. And something must be done about the extremely poisonous nature of them and their byproducts.

Hydrazine, too, has qualities of a good liquid high-energy fuel, but it's incomparably more unstable, more corrosive, more toxic than aviation gasoline. The boron hydrides, of which Olin Mathieson's diborane is the simplest, are poisonous and explosive.

• **Hard to Handle**—Liquid fluorine is even harder to handle. It turns to vapor at minus-306F, so it must be heavily refrigerated. It is corrosive, eats its way through most containers and connections, then bursts into flame as it touches the air. Its combustion products are poisonous.

Pure liquid ozone, fluorine's chief rival in scientific thinking about oxidizers, may be still more troublesome to produce commercially. So far, only tiny amounts have been produced for military experiments. Ozone is a rather unstable form of oxygen. In high concentrations, it is violently explosive; a minute impurity can set off liquid ozone in a flash.

However, researchers at Temple University have reportedly prepared 100% liquid ozone by starting with specially purified oxygen and using scrupulously clean equipment. Ozone offers at least as much specific impulse as fluorine when used as a fuel oxidizer, and is free from fluorine's toxic byproducts.

• **Solid Fuels**—Liquid fuels as a group



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These amazing granules were developed by Pittsburgh Coke & Chemical. In addition to color removal, they're widely used today for pharmaceutical purification, solvent recovery, air and water purification and dozens of other vital adsorption processes. They're another outstanding example of Pittsburgh Coke's unique ability to create better, more useful products from coal . . . and to guard their quality and purity through every step of production, from coal to finished product.



call for so much precaution in mixing, filling, and chilling that they will likely be feasible only for long-range rockets and jet planes. In wartime, for example, liquid refueling stations anywhere near the scene of action would be too hazardous. There, and for some other uses, solid fuels will be essential.

In solid propellants, the fuel and the oxidizer are mixed ahead of time. Sometimes, the fuel itself serves as the binder for its oxidizer, in crystalline form; in nitrated solid propellants, the oxidizer is chemically tied into the fuel.

Solid propellants are generally harder to manufacture than liquid fuels, but they're cheaper and they're safer to handle at the firing site. The basic work is done at the factory. That's tricky enough—like most explosives, the materials can detonate at many stages of production even when all air is excluded.

When finished, however, solid fuels—especially those based on rubber, plastic, or organo-metallic compounds—are far safer to store or transport. And their burning rate is predictable—it has been predetermined during manufacture. On the other hand, it can't be varied as with liquid fuel.

• **Effect on Design**—Solid fuels save weight, both in their containers and in the absence of the pumps that liquid fuels require. They do affect the design of the engine, however, since they don't fit into any space that happens to be vacant, as liquid fuels do.

The necessity for designing the vented vessels for solid rocket fuel is somewhat balanced by the greater simplicity that can be gained in the engines themselves by the elimination of pumps.

• **Prospective Fuels**—Research developments in solid propellants have been shrouded in official secrecy for years, but it is known that several light metals, such as beryllium, boron, lithium, aluminum, and magnesium, have been studied as fuels. Beryllium and boron, of course, have extreme problems of toxicity to offset their high Btu. ratings.

Light metals powdered with oxidizers are another possibility, and solid fluorine compounds are being sought. Researchers are even studying a combination of liquid and solid fuel systems—such as a slurry of solid fuel and liquid oxygen.

Whatever happens, it is apparent that there will be no single rocket fuel of the future, or even two or three fuels. Instead, the high-energy fuels to run tomorrow's rockets and space ships will be a whole catalog of chemicals and metals. The choice for each engine will depend on the uses and operating conditions in that case.

Thus, there's encouragement to draw many other companies, besides those already in the field, into the research and production of rocket fuels. **END**



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A hundred years ago the world's population was just under 1 billion

1837

It is now 2.7 billion

1937



. . . YOU CAN TAKE YOUR CHOICE

By 2000, experts like Notestein (1945), and the Woytinskys (1953), say it will be only 3.3 billion ▼

2000

But the United Nations (1957), says it will be 5.4 billion ▲

The Woytinskys (1953), project 3.6 billion in 2050, and an upper limit of 4 billion that will hold for centuries ▼

2050

But by 2050, CalTech scientists (1957), foresee 7 billion people ▲

SOURCES: United Nations; W. S. & E. S. Woytinsky, *World Population & Production*; Brown, Bonner & Weir, *The Next Hundred Years*; F. W. Notestein, *Population—The Long View*

Why the Guesses Go Haywire

Forecasters can get any estimate of world population they like—from 4-billion to a "conservative" 7-billion 100 years from now—depending on the assumptions they make.

The dispute doesn't end there. Economists are still debating whether a growing population is good or bad.

When it comes to forecasting the world's population a few generations hence, the experts are billions apart (chart above).

In a new study, the United Nations predicts that by the end of this century the world's present population of 2.7-billion will double to 5.4-billion. Present growth is 43-million people a year.

• **Differing Forecasts**—A few years ago, two leading demographers, W. S. and

E. S. Woytinsky, forecast a world population of only 3.2-billion in the year 2000. In their monumental study, *World Population and Production*, undertaken for the Twentieth Century Fund (BW-Nov.21'53,p171), the Woytinskys estimated that world population would reach 3.6-billion by 2050, and then level out at about 4-billion.

On the other hand, three California Institute of Technology scientists make a "conservative" prediction that world

population will hit 7-billion in 2050. Profs. Harrison Brown, James Bonner, and John Weir in their new book, *The Next Hundred Years* (Viking), make the assumption that there will be a rather rapid and widespread acceptance of birth control techniques. That's why they tag their estimate of 7-billion a conservative one. "Without such acceptance," they say, "the increase may be much greater than this."

And if you were to take the rate of growth of today's population—which the U.N. figures to be 1.6% per year—and assume it will continue until 2050, you would wind up with a world population of 14.7-billion by that year.

The wide divergence in numbers is confusing. But the confusion doesn't end there. The experts also find themselves disagreeing whether the rapid

rise in population is good or bad.

• **Good or Bad?** To most U.S. businessmen, a fast-growing population seems wonderful—a stimulus to investment, profits, full employment, technological development, economic growth. In fact, many businessmen are worried about the forecast (elaborated recently by such economists as Martin Gainsbrugh of the National Industrial Conference Board) that this country can expect a lower family formation rate in the next five years as a result of the fall-off in the birth rate two decades ago. This, it is claimed, will restrain investment and economic expansion until the bumper crop of postwar babies comes of age in the mid-1960s.

But many economists, geochemists, and biologists hold a contrary opinion. They believe rapid population growth is the bane of economic progress. Included in this group is China's dictator, Mao Tse-tung. Mao recently issued a warning to the Chinese people: "This figure (30-million Chinese births a year) must be of great concern to us all. . . . The increase in the grain harvest for the last two years has been barely sufficient to cover the needs of our growing population. . . . Steps must therefore be taken to keep our population for a long time at a stable level, say of 600-million."

The question arises, then, whether rapid population growth is bad for China, but good for the U.S. Some economists will snap right back with the argument that any country, advanced or underdeveloped, can have the gains of economic growth gobbled up by the stork. They hold that—though years ago the U.S. was under-populated, as Canada may be today—nowadays rapid population growth in the U.S. is a drag on the individual's economic welfare, just as it is in China.

• **Opposing Positions**—If it's not possible to dispel the confusion over population growth, then at least it is possible to formulate the four opposing positions held by the experts:

- Population will continue to grow rapidly, and this is bad.
- Population won't continue to grow rapidly, and this is bad.
- Population will continue to grow rapidly, and this is good.
- Population won't continue to grow rapidly, and this is good.

Here are the arguments for and against the opposing propositions.

I. The Forecasting Muddle

The different conclusions on how long the present rapid population growth will continue are largely the result of different techniques of prediction. These are the three principal ones:

- **The Historical Method**—This

treats population growth as an aspect of cultural development. Nations with similar cultures—industrial or agrarian—will have similar birth and death patterns. When poor countries come more nearly to resemble the more advanced nations of the West, their birth and death rates will drop, and their fast, uncontrolled population growth will cease.

• **The Statistical Method**—This is based on an application of recent birth and death rates to existing population groups. High and low assumptions are made as to how much existing rates may vary over the forecast period.

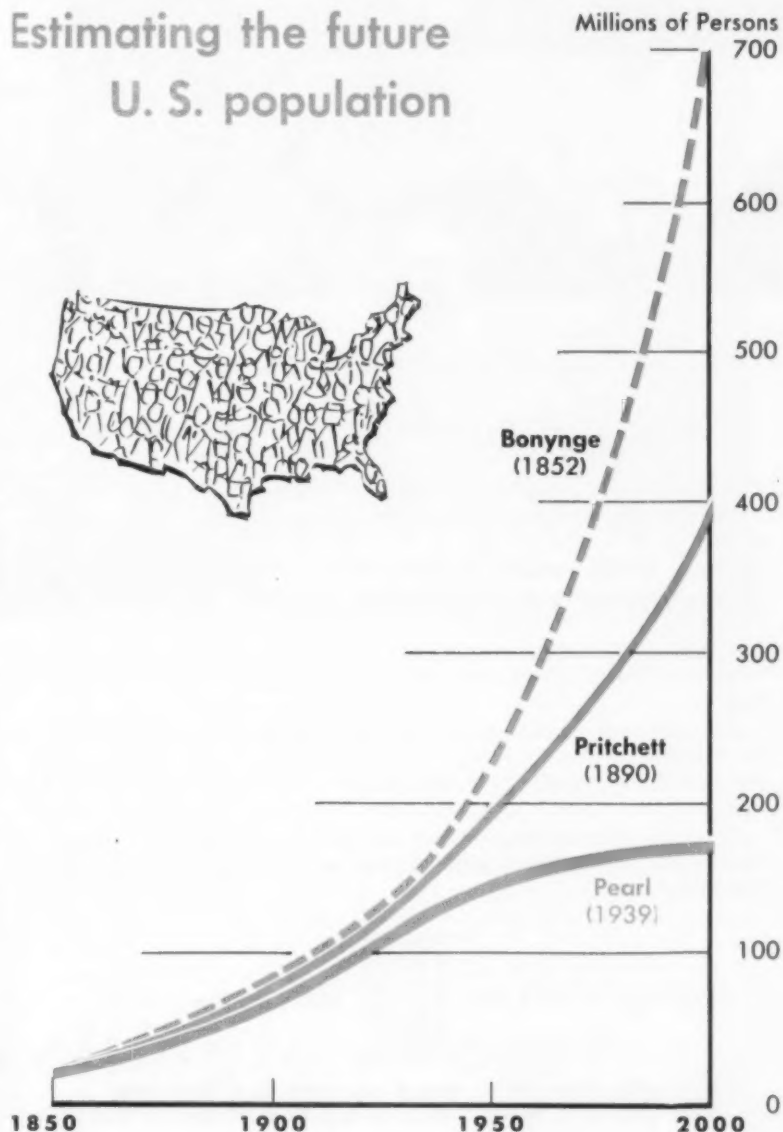
• **The Mathematical Method**—This assumes that total population grows according to some definite mathematical

formula. The demographer fits a curve to past population data, then lets it follow its course into the future.

All of these techniques have weak spots, which may lead to bigger and bigger errors as they are applied to longer stretches of time.

• **Weak Link**—The link between culture and population growth assumed in the historical technique, for example, is extremely shaky. A decade or so ago most demographers believed that the industrialized North American population had almost stabilized, that it would scarcely grow in the future. But since World War II, the North American population has become one of the fastest growing in the world—as fast as Southeast Asia, faster than the

Estimating the future U. S. population



SOURCES: Francis Bonyne, *The Future Wealth of America* (1852); H. S. Pritchett, *A Formula for Predicting the Population of the United States* (1890); Raymond Pearl, *The Natural History of Population* (1939).



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Soviet Union or South Central Asia.

It is true, of course, that North America gets its fast growth rate in a different way from, say, South Central Asia. The North American birth rate is 25 per 1,000, its death rate 9 per 1,000. The South Central Asian birth rate is 41 per 1,000, its death rate 28 per 1,000. So the annual rate of growth in North America is 17 per 1,000, against 13 per 1,000 in South Central Asia. Presumably, if South Central Asia attained an industrial civilization like ours, it would grow faster, not slower.

• **Underestimation**—Even minimum-maximum statistical forecasts made over a short range can go haywire. In 1947, two outstanding American demographers, Warren S. Thompson and P. K. Whelpton, updated a set of projections for the U.S. Census Bureau, taking into account the booming postwar birth rate. Thompson and Whelpton predicted that the U.S. population would reach a minimum of 149.8-million or a maximum of 158.6-million in 1960. But, according to last year's Census Bureau forecasts, the population of the U.S. already is over 170-million and should reach almost 180-million in 1960. Slightly wrong estimates of both birth and death rates threw Thompson's and Whelpton's figures off by tens of millions in only a decade.

Projecting population by mathematical formulas that assume a steady compounding of the present growth rate can lead to absurd conclusions. The Cal Tech prognosticators, for instance, figure that if the world population grew for 450 years at the present rate of growth of Formosa (3.5% per year), there would then be one person for every square foot of land on the earth.

• **Off the Track**—Curves that work well for a time may jump the tracks suddenly, as you can see from two celebrated earlier forecasts of U.S. population. One is by a New York merchant, Francis Bonyng, in 1852, and the other by a mathematician-astronomer, H. S. Pritchett in 1890 (see chart on page 53). Bonyng's forecast fit the actual U.S. population trend nicely for 80 years, but went badly astray after 1930. If Bonyng had been right, the U.S. population would be 280-million today, and would reach 700-million in 1980.

Pritchett's 1890 projection was right on the nose for 1930, but then shot up too fast. In 2100, Pritchett predicted, the U.S. population would be 1.1-billion; in 2500, 11.9-billion; in 2900, 40.8-billion. These results didn't disturb Pritchett, a scientist willing to face facts. "As a consequence of all this," he noted, in what may well be the understatement of the century, "it would seem that life in the future must be subject to a constantly increasing stress."

• **"Logistic" Curve**—To correct such



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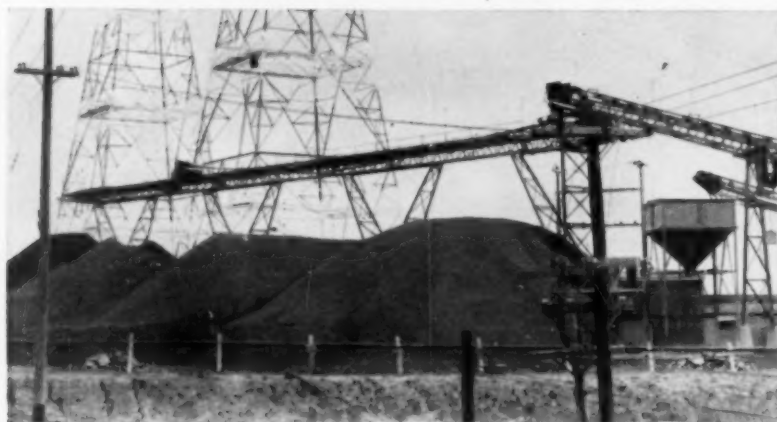
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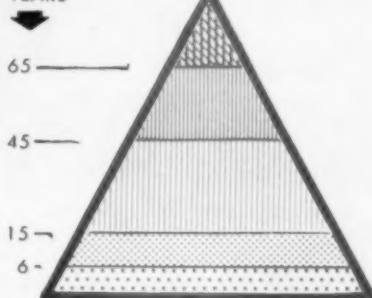
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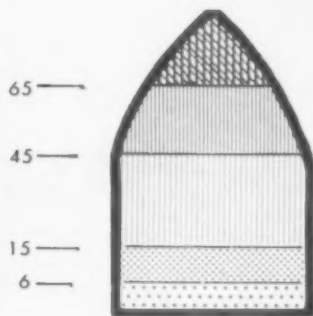
CONVEYORS...LOADERS...DITCHERS...ASPHALT PAVING EQUIPMENT

THE SHAPE OF POPULATION

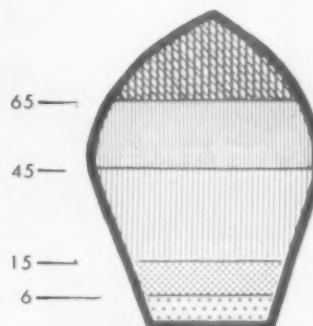
AGE IN YEARS



A young population , ,



. . . an aging population . .



. . . an aged population

mathematical vagaries, economists and demographers have long experimented with different techniques for scaling down current growth rates in making their forecasts. A 19th Century Dutch mathematician, P. F. Verhulst, introduced the technique that has become pretty standard among conservative forecasters today. He used an S-shaped "logistic" curve, based on the assumption that population growth rates would taper off and population grow at a declining rate until it reached a limit.

The tough part about logistic curve-making, obviously, is to predict the limit. For Verhulst, in the 19th Century, the limit had to be imagined—

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Rockwell Report



by W. F. ROCKWELL, JR.

President

Rockwell Manufacturing Company

know that the product is a water meter, certainly not normally considered in the "glamor" class.

But the reasons for the excitement it has caused in the water industry are actually simple and basic ones. First, the new Rockwell Sealed Register Water Meter is (and not in our opinion alone) the most significant advance in water meters during the past fifty years. And second, it comes at a time when water metering is getting deserved recognition as the most practical means of controlling the almost nationwide water shortage.

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In the interest of Rockwell-Ohmer Taximeters, our Market Research Department recently completed a study of "taxicab etiquette." A complete report is available to taxicab operators, but here are a few items of pretty general interest: If your cab fare is 35 cents or less, don't ask for change from a half dollar; for fares between 40 and 80 cents a 10 cent tip is absolute minimum anywhere, 15 cents in larger cities; for larger fares, 15 to 20 per cent is considered "adequate" by most drivers who, incidentally, expect men to tip more than women.

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One of a series of informal reports on the operations and growth of the

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since birth rates hadn't actually started to decline. But 20th Century demographers have had shrinking birth rates to use as a basis for drawing logistic curves. Using such a curve (chart on page 83), Raymond Pearl did a 1930 projection of the U.S. population that was right on target in 1950. But since then it has been running low. Pearl thought the U.S. population wouldn't reach 170-million until the early 1970s, and would reach a limit of just under 200-million in the 21st Century.

Pearl also did a world population forecast in 1930, based on the swing of birth and death rates after 1650. He concluded that world population would reach its limit at 2-billion in the 21st Century. In 1939, Pearl raised the limit to 2.6-billion—but the U.N. study puts world population at more than that already.

• **Adaptation**—The Woytinskys have boosted the limit to about 4-billion, after which, they say, world population will either hold roughly stable or else deaths will begin to outrun births "until the human race is extinct." But the Woytinskys bet on population stability—because of their hunch that man will go on demonstrating his "superior capacity to adapt himself to the environment and to adapt the environment to his needs."

Underlying all logistic-curve predictions, like those of Pearl and the Woytinskys, is the proposition that sooner or later population growth must have a negative effect on economic welfare. For that reason, population forecasting is intertwined with the economics of population.

II. Economics of Population

The first of the population economists was the English clergyman, T. R. Malthus. He held that population (like money in a savings account) tended to grow by a geometrical progression, while resources showed no such tendency. In fact, he believed, as limited resources were more intensively used, the returns would diminish—and per capita income would keep slipping below the starvation level, thereby restoring the balance between resources and people (at just about the starvation level).

• **Malthus' Error**—Obviously, Malthus was too gloomy. Since his *Essay on Population* was published in 1800, world population has trebled, and, certainly in the West, living standards have risen enormously. Malthus' fundamental error was in regarding resources as fixed and not, as they really are, a function of changing technology. As Raymond Pearl has said, Malthus' sad predictions seemed "comically absurd soon after he made them."

In fact, only two decades ago, most economists were worried that a threat-

Outdoor Station

features

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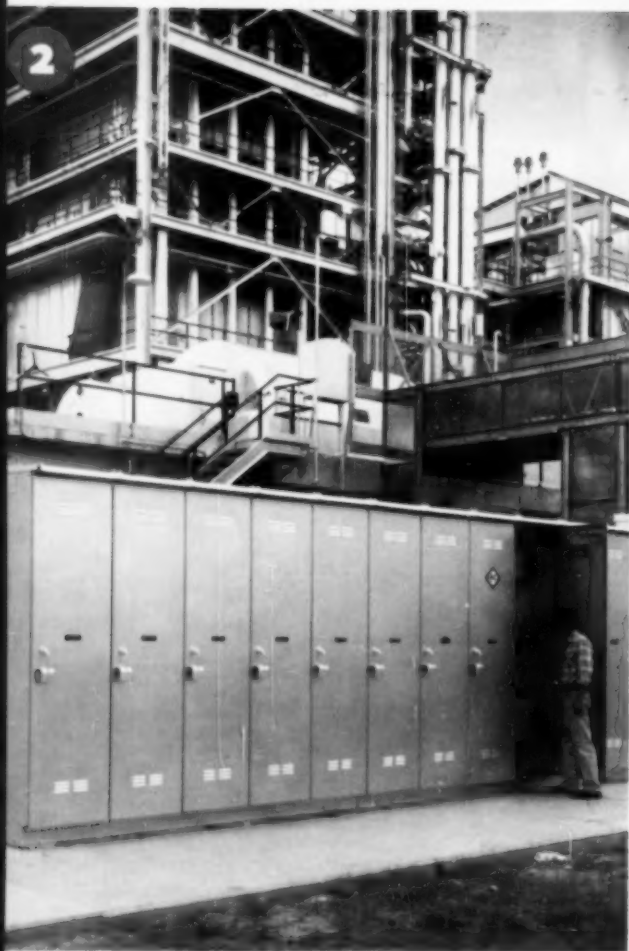
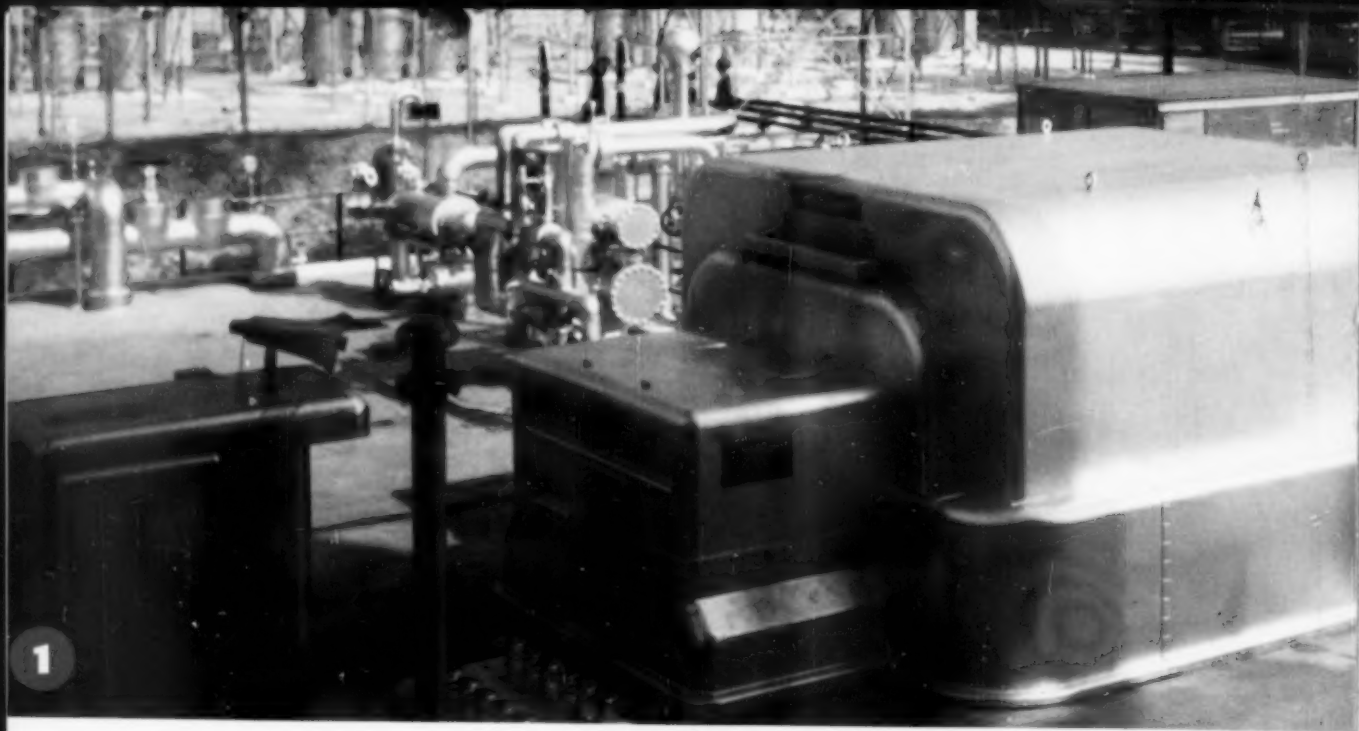
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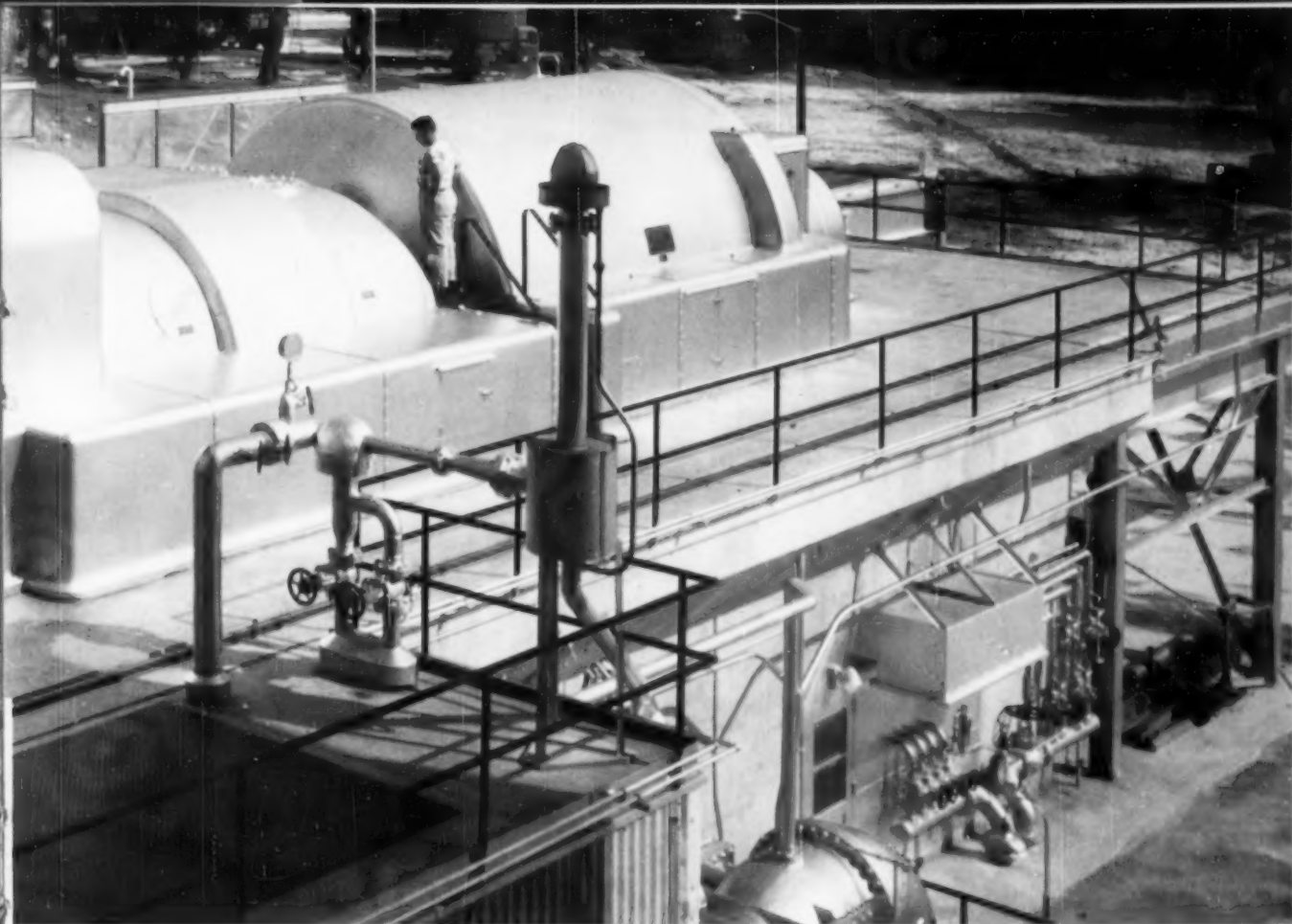
Palatka Station

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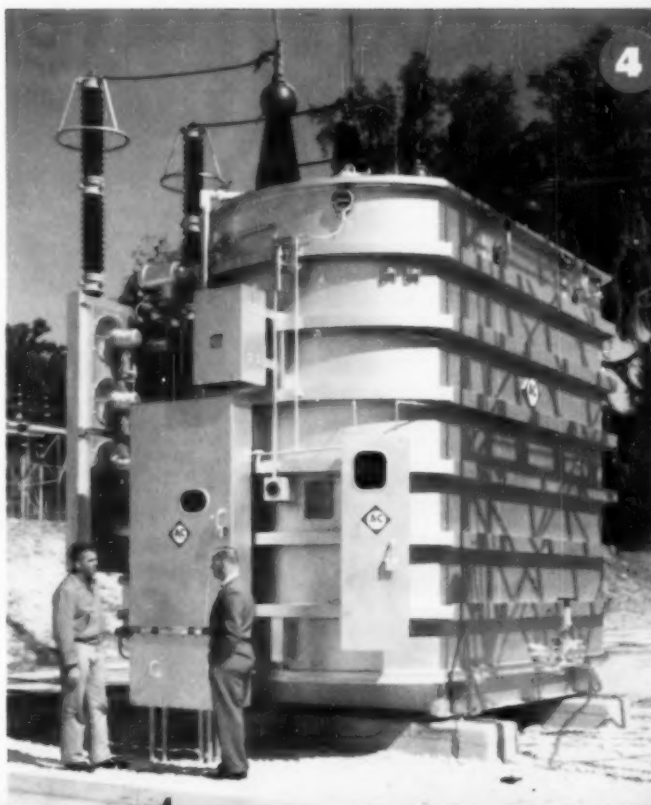
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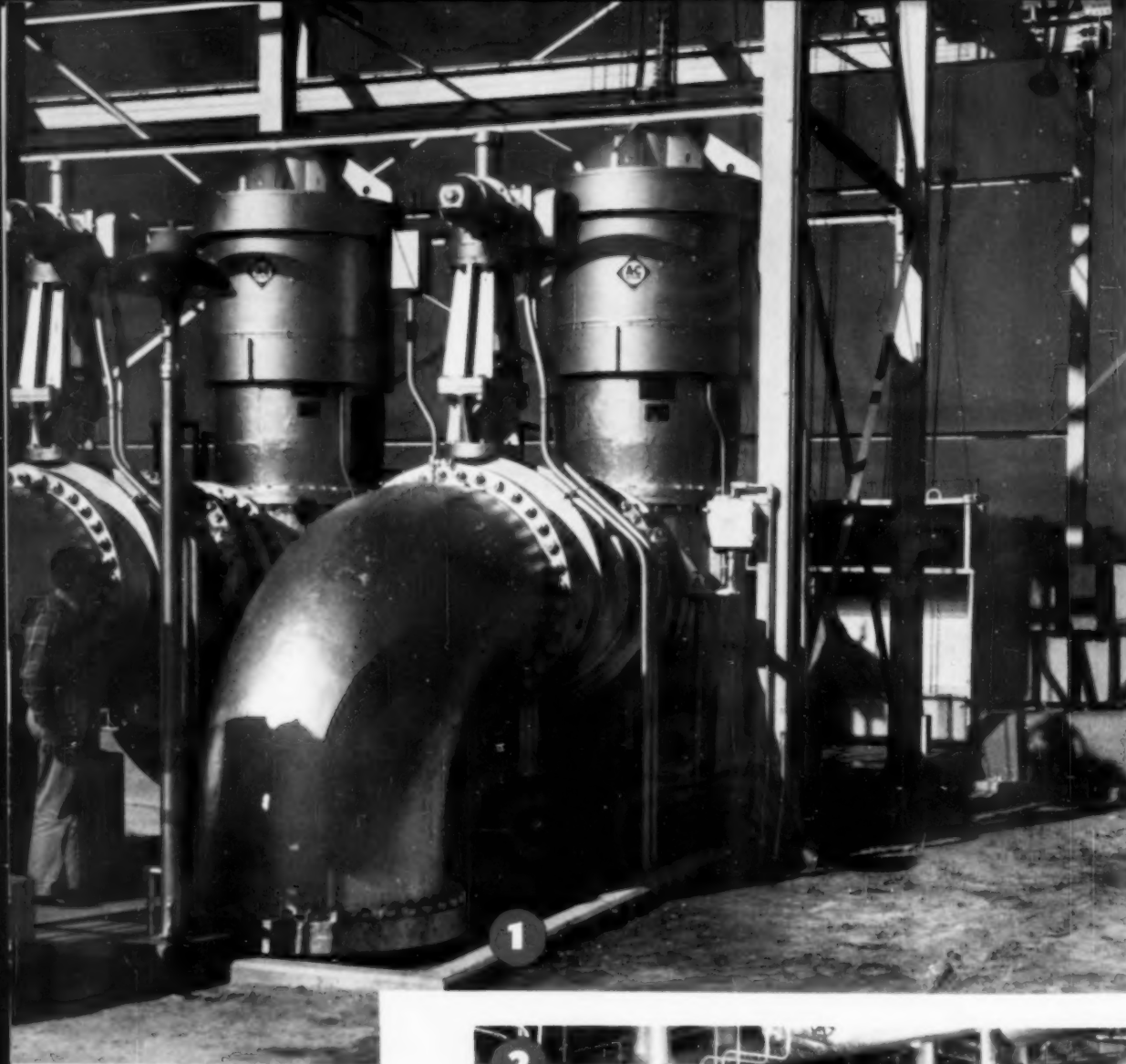
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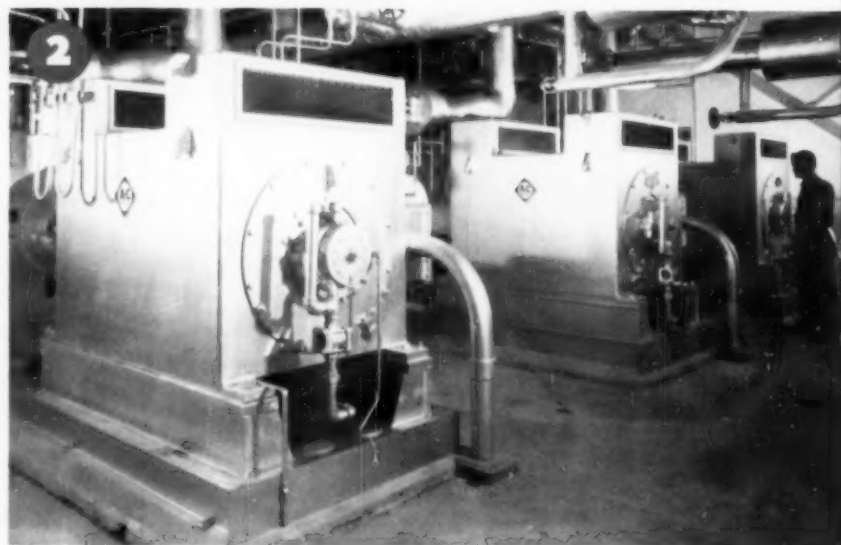




1. Pumps-Motors — Shown above are two vertical weather-protected motor-pump units furnished by Allis-Chalmers.

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"... many American companies have based their expansion plans essentially on population forecasts ..."

STORY starts on p. 82

ened decline in population would breed economic misery. In the 1930s, in Western nations, there seemed to be a cause-and-effect relationship between the falling birth rate and falling national incomes—with the decline in population preceding the decline in income.

• **Myrdal's Theory**—The Swedish economist, Gunnar Myrdal, formerly executive secretary of the U.N.'s Economic Commission for Europe and now director of an economic study of India, pursued this line of thinking. In the 1930s he declared that the worst effect of a shrinking population was that it dried up investment opportunities and created wasteful imbalance in an economy's capital structure. For instance, Myrdal asked, what happens in a growing city if you make a mistake and build too many of the wrong kind of apartments. Nothing serious—because, as the city grows, people will eventually occupy your apartments. But, if the city's population were shrinking, nobody would ever occupy them—and capital would be tied up in useless property.

The same holds for much of the economy, said Myrdal. A declining population multiplies investment risks. On the other hand, he believed, a growing market—based on a growing population—is the basic condition of a free, unregulated capitalist system. Moreover, Myrdal argued, a declining population is an aging population, and such a society suffers a loss of vigor and opportunity.

• **"Population Policies"**—Myrdal's case was powerfully impressive to a world worrying about social decay, economic stagnation—and the threat of world war. His argument and similar ones helped lead governments to adopt "population policies" aimed at stimulating the birth rate by such measures as housing subsidies and family allowances.

To many, the postwar boom in both population and income appear to confirm Myrdal's position. Since the war, many American companies have based their expansion plans essentially on population forecasts—taking for granted the positive correlation between rising population and rising national income.

• **Dissenters**—But a growing number of American economists think this is a weak assumption. Some, such as Prof. Joseph J. Spengler of Duke University, in fact argue that just the opposite is true, that population growth depresses income. Here are the main points in the anti-population argument:



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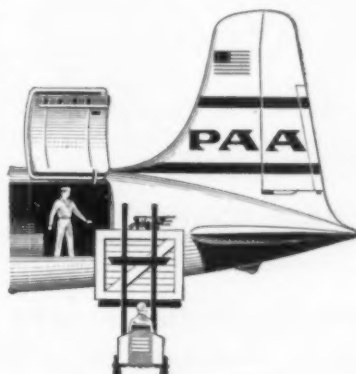
Crating and carting the fountains to dockside for shipment by sea, and carting to the buyer from the Central American port, would have cost \$2,870

—and taken two weeks and a half. By air the whole job cost \$2,672—and took just 7 days.

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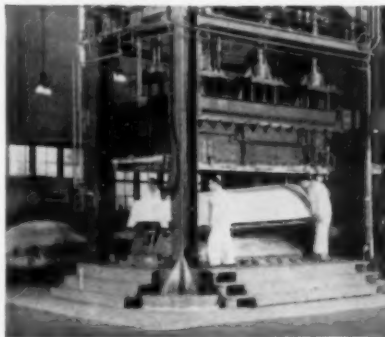
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- Population growth does create a need for more investment (if you are going to maintain living standards), but it does not necessarily create an effective demand. Increasing numbers of people in India or China, for instance, may need more housing. But what they may effectively demand is more mud huts or more sidewalk space on the city streets. Even in advanced countries, more people may effectively demand more housing—but at the expense of the kind of investment that would raise per capita output and income.

- A growing population reduces the relative size of the age group (say, 20 to 65) that actually produces income, and increases the part of the population that must be supported (see diagrams on page 86). The U.S. population, because of a rise in the birth rate and a drop in the death rate, is in fact growing fastest at both ends—thus providing double burdens on the working people in the middle.

- Population growth is already pressing hard against certain U.S. resources, depressing income in hard-to-measure ways. It is taxing our water supply, for example, creating serious water shortages in many areas. It is breeding problems of congestion that can only be remedied by fantastically high capital expenditures (for highways, bridges, tunnels, etc.). It is causing air pollution, and gobbling up clean and pleasant country and beach land. As time goes on, growing population will press still harder against domestic and world supplies of minerals and fossil fuels, push raw material costs higher.

- A rising population is no guarantee against economic depression. The depressions of the 19th Century, for instance, occurred in the midst of rapidly rising population. The cause-effect relationship, it is argued, actually runs the other way: Higher income causes a higher birth rate—though this relation is not invariant.

- A rising birth rate is not essential for the maintenance of full employment. That, the argument goes, depends more on following the right kinds of fiscal and monetary policies, and on continuing technological innovations. Of course, a growing population does stimulate certain kinds of investment, as in housing or schools. But there is no reason why a society could not just as well devote more of its income either to other kinds of investment or to raising consumption levels.

- **The Key**—The key to both riddles about population—how fast it will continue to grow and whether continued growth is good or bad economically—is tied closely to this question: Can technological progress keep usable resources growing faster than population? Only time will provide the answer. **END**



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The Joint Economic Committee has achieved an enviable reputation. One reason: Its staff economists can take a broad national view, unshackled by partisan maneuvering.

THE MEN in these pictures are economists by appointment to the Congress.

They comprise the staff of the Joint Economic Committee, and their duty is to aid the committee in promoting economic growth and stability.

They perform many of the tasks that economists perform for private business, and that the Council of Economic Advisers performs for the President. But there's this difference:

Instead of working in the quiet retreat preferred by economists, these men perform always in the glare of political controversy. They deal with such explosive matters as taxation, tight money, and rising prices—and do it with powerful men of both parties looking over their shoulders.

From the outside, this might appear to be an impossible condition under which to practice economics. Yet the staff has been eminently successful, raising economic analysis to the most respected position it has ever held in Congress.

• **No Ducking**—Where the Council of Economic Advisers—for example—has withdrawn more and more from controversial subjects, limiting its role to that of the President's confidential adviser, the Economic Committee staff plunges energetically into one sensitive subject after another—wherever the orders of the committee lead.

The committee cannot, under the law, propose new legislation. It is empowered, however, to examine the President's annual Economic Message to Congress, comment on it, and make whatever pertinent economic studies it desires. This is a charter practically as broad as the concept of high-level employment itself. Under it, the committee and the staff influence the economic decisions of government in many ways—and thus the decisions of businessmen. Here are some examples:

• Relying on economic analysis by the staff, the committee for the past couple of years has argued stoutly against tax reductions. Despite mounting political temptations to go ahead and cut, Congress has agreed.

• When business softened in 1953, some members of Congress began calling for all-out anti-depression actions.

A staff report entitled "Sustaining Economic Forces Ahead" allayed fears, helped put the recession in its correct economic setting.

• Congress was about to go home in 1951, during the Korean War, with a tax cut scheduled to take effect the next January. Neither Congress nor Pres. Truman recognized that inflationary pressures were mounting. The committee rushed a one-page warning into print, signed by every member. As a result, Congress remained in session, extended existing tax rates, and agreed to a special session, which eventually adopted the Korean War excess profits tax.

• A study of money and credit, conducted under the chairmanship of Sen. Paul Douglas (D-Ill.), paved the way for the Federal Reserve-Treasury accord of 1951—a major turning

point in monetary history. The Douglas study criticized the pegging of Treasury bonds by the Federal Reserve as inflationary; the accord ended this practice.

• **The Agenda**—The joint committee economists have new studies in the works that may lead to results just as significant.

The committee has asked some 30 economists in business, labor, and the universities to prepare research papers on the effects of federal spending. These will be published sometime this fall, followed by hearings and a report. Among other things, this study will introduce many members of Congress to the idea that rising federal expenditures—even within a balanced budget—can be inflationary.

The committee is also diving into agricultural policy. The stress is being



JOHN W. LEHMAN
Acting executive director



JAMES W. KNOWLES
Business outlook specialist



WILLIAM H. MOORE
Monetary policy is his field



NORMAN B. TURE
Budget and fiscal expert



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put on the problems of the family-size commercial farm, in the hope of breaking out of the stalemate over price supports and production controls that is gripping Congress and the Administration. George E. Brandow, agricultural economist at Pennsylvania State University, has been added to the staff to conduct this study.

• **Shunning the Narrow View**—There are—of course—many professional economists connected with the traditional Congressional committees: Agriculture, Commerce, Labor, Appropriations, and the like. The unique role of the Economic Committee staff is to avoid the specialized point of view, and to assess policy in the light of the national economy as a whole.

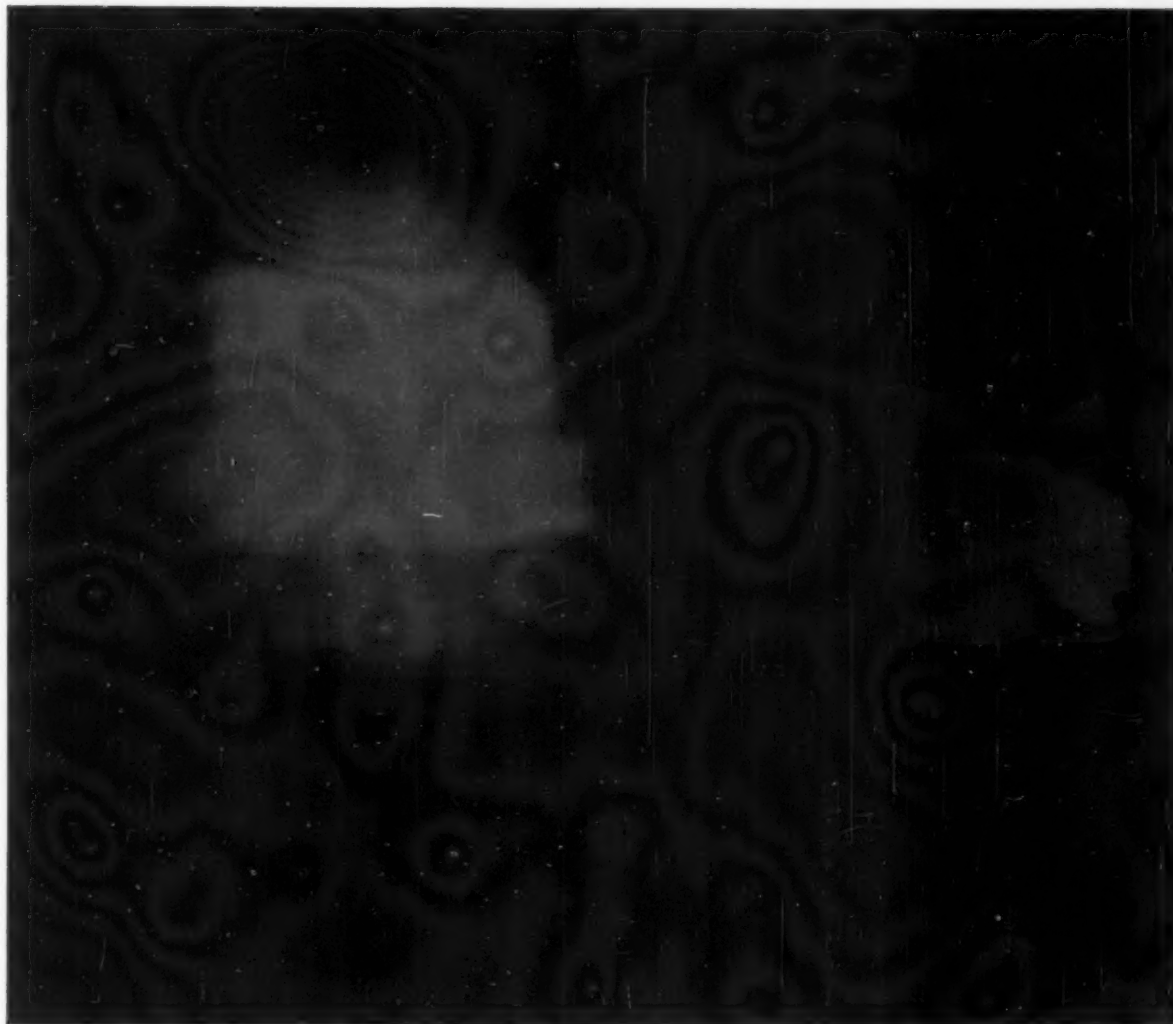
This breadth of view stems from the Employment Act of 1946, the law that created both the committee and the staff. Under this law, Congress commits itself to a policy of promoting maximum employment, production, and purchasing power. Thus, when the committee tackles a problem such as agriculture, it is not supposed to say—as the old-line agricultural committees do, "What do farmers want?" It says, "What can be done for farmers that will promote the growth and stability of the whole economy?"

• **No Minority Aides**—In tackling their assignments, staff members shoulder an unusual responsibility. They serve Republicans and Democrats alike. Influential members of both parties regularly sign the staff's reports. There is no such thing as a minority staff member to work for the party out of power, as is the practice on the old-line Congressional committee staff.

This means the staff constantly lays economic analysis before strong-minded men of both parties—on subjects that cause heated partisan flare-ups elsewhere. To the astonishment of Washington, not a member of the staff has ever been fired for political reasons—though control of Congress has shifted from Republican to Democrat and back again four times since the committee was organized. There is a comfortable sense of security in the staff. John Lehman, its present acting director, for example, was the fourth employee hired by the committee when it started 10 years ago.

• **Committee Backing**—This is due in part to their own good sense and professional competence, but mostly to the backing of the committee, which for a decade now has been led by powerful men—passionate believers in economic analysis as a tool of policymakers, determined to maintain a professional atmosphere in which first-class economists would feel at home.

• **A Price Is Paid**—The successes of the committee and the staff—after everything possible has been said in their



Chlorine leads lives back from the shade

Into the darkness of mental disturbance, light. Take chlorpromazine. Thousands of disturbed men and women do, to tremendously beneficial effect. This relaxant makes it possible to free many of the severely disturbed from security restraint and permits more rewarding communication between patient and therapist. First of the newer tranquilizers to be synthesized or chemically "reproduced," chlorpromazine utilizes chlorine in three important, entirely separate ways.

From the deadliness and pain of disease, release. Chloromycetin, one of the more recent antibiotics to be successfully synthesized, saves thousands from the dread grip of such killers and cripplers as pneumonia, influenzal meningitis, undulant fever, and many staphylococcus, streptococcus, or virus-

caused diseases. Chlorine brings this medication into being, too.

In these and other drugs, chlorine is a vital, functioning part of the molecular structure. In many others, this wonder element acts primarily as an "intermediate," establishing the favorable conditions necessary for further chemical processing. In yet other cases, chlorine converts compounds' physical properties alone, safely changing medicines into forms better suited for administration, handling, or storage.

Its readiness to react with other chemicals is so vital to industry that chlorine is one of the few elements whose shipping tonnages serve as a reliable index of total business activity. Bleach, germicide, active ingredient or intermediate in plastics, synthetic rubber, solvents, dyes, herbicides, re-

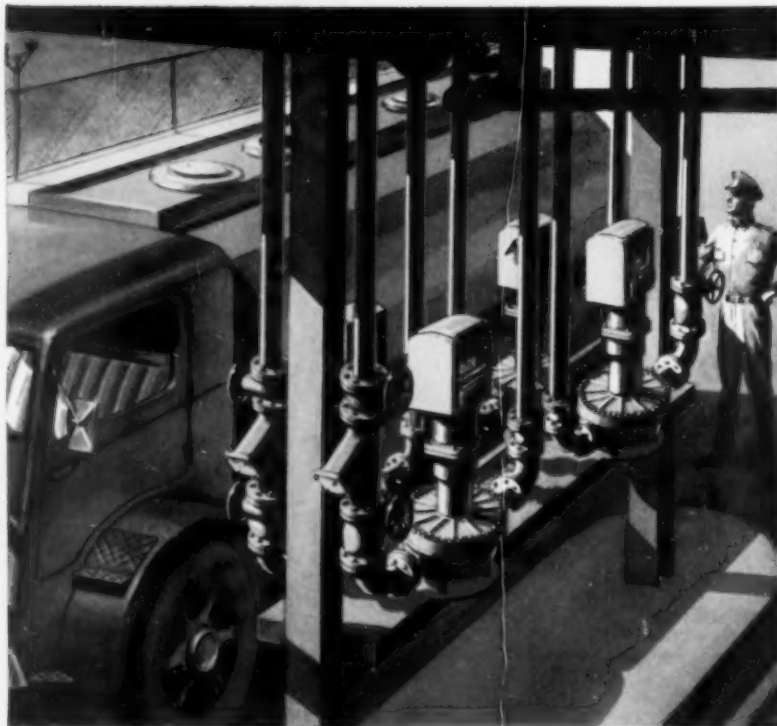
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IN MODERN gasoline and fueloil wholesaling "bulk plants" where big tank trucks load up and roll out in a matter of minutes, a large Red Seal petroleum meter like this often puts through 10 to 15 million gallons a year. At 14¢ per gal. (wholesale ex tax) that's over \$1,500,000 entrusted yearly to a meter that cost only \$500! A battery of busy meters in a big plant frequently handles \$10 or \$15 million a year.

Running at such high rates, those meters must sustain accuracy within extremely close limits, or small errors might become heavy losses before they're caught. The finest meter is truly worth every bit of its price.

Neptune, advancing its leadership in petroleum meters, has recently introduced several new products and systems for bulk plants. It's another example of Neptune's growth... with a wide variety of products now serving many industries.

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Hot Spot Detector Co., Inc.	temperature warning systems
Electronic Signal Co., Inc.	toll collection equipment, electronic scales

behalf—are limited ones. Even though their work is accepted with respect, this does not mean that the philosopher-economist is now king. Far from it.

They pay a price—for example—when they bring men of diverse political and social views to a common economic point of view. The price is a tendency to fuzz over the fine points on which disagreements might emerge, to draw away from the hard and final conclusion that would drive committee members apart. In some of the committee's reports analyzing the President's annual Economic Message unanimity is clearly purchased at the expense of these faults.

Other weaknesses occasionally crop up:

- Both the professional integrity of the staff and the subjects it is directed to study, depend almost entirely on the chairman. Probably the least productive two years were 1953-54, under the chairmanship of Jesse P. Wolcott, who at that time was also chairman of the House Banking & Currency Committee, which required most of his energy.

- The advice of the staff is not paramount when it comes to selecting research areas, even under the most sympathetic chairman. Thus the staff is hampered by the jealousies, ambitions, and fears that hem in even the strongest men in Congress.

- There is a tendency at times to present difficult technical material—such as the recent study, Productivity, Prices, and Incomes—and avoid making any policy conclusions.

Such criticisms are rarely voiced, however, either in Congress or in the economic profession. The achievements of the committee and the staff loom so large in light of the inherent difficulties of their assignment, that criticism has been muted.

- **Gaining Prestige**—The committee itself is something of an oddity. Originally it was thought of as a useless fifth wheel to the Employment Act; the Council of Economic Advisers was considered far more important.

But despite the committee's lack of legislative power, membership on it has always been eagerly sought. Its reports are treated with respect even by men who usually scorn economists.

One of its studies, for example, recently created a stir within the hallowed hearing room of the Senate Finance Committee, where Sen. Harry Byrd (D-Va.) is conducting an inquiry into the financial condition of the country along the traditional Congressional pattern.

- **Oil on Troubled Thinkers**—After listening to Democrats on the committee wrangle with Treasury Secy. George M. Humphrey in one of the early sessions, a veteran government economist



Key to not changing hoses in midstream

The nation's need for oil grows daily. And with it grows the importance of rubber hose as a link between well and market.

It used to be that the vital stream of petroleum products frequently was interrupted by premature hose failures. Complaints were commonplace, users changed brands often and hose manufacturers could do little to improve the situation.

The picture changed, however, with the introduction of CHEMIGUM — first of the nitrile rubbers—back in 1940. Through the years, the outstanding resistance of CHEMIGUM has helped immeasurably to reduce the flow of complaints on hose failures to a mere trickle. And each year has seen a steady improvement in the quality and processability of this unusual rubber.

To handle oil, solvents and chemicals, CHEMIGUM is also used by rubber manufacturers in pump linings, diaphragms, seals, packings, O-rings, hard-rubber pipe and fittings, as well as in hose and mechanical goods. As either a manufacturer or purchaser of rubber products, you stand to benefit from an appraisal of CHEMIGUM and what it can do for you. Whatever your interest in rubber products, you will find our latest manual informative and helpful. Write for "A New Look at Nitrile Rubber," to:

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The man who couldn't retire

This man—let's call him Jim—had sold out his business for a tidy fortune. He had all the money a man really needs but in a few months he got restless. The only business he knew was closed to him by the terms of his sales agreement. So he came to us for ideas.

We told him of a city on our lines that needed a merchandise warehouse. We also knew of a building well suited to this use that could be bought at a fair price. Jim looked into it and it looked good.

"The only trouble," he said, "is that I don't know a blasted thing about warehousing."

So we fixed that, too!

We knew another man—let's call him Bill—who had a very successful warehousing operation in another city. We brought them together and they hit it off fine.

Bill went over the proposed new warehouse and liked it so well he offered to take a minor-

ity interest in the project and help run it till Jim learned the ropes.

The warehouse is doing so well they have recently built a large addition.

Of course this is an unusual case, but as a service organization, we welcome doing the unusual and performing other services for any business considering a new location. C&O's Industrial Development Department has an encyclopedic knowledge of the territory that Chesapeake and Ohio traverses—its geography, its people, its resources, its opportunities. Our function is to give you the facts.

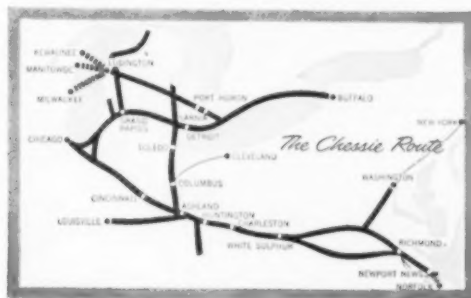
All inquiries are handled in strict confidence. If you wish, we can arrange to have negotiations with owner, zoning authority or other civic body handled anonymously. When you call upon us, you will receive every assistance from our staff of experienced industrial specialists at no cost to you.



Write for new booklet describing industrial resources and opportunities in C&O territory. Address: Wayne C. Fletcher, Director of Industrial Development, 3204 Terminal Tower, Cleveland 1, Ohio.

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Top Packaging Team Creates Sensational Sales for *Lawry's* Spaghetti Sauce and Salad Dressing Mixes



Dobeckmun and Lawry's chose new Alcoa Wrap to capture impulse market in record time

The name, Lawry's, has become a household word in every city across the country in one of the most rapid and dramatic of food success stories. Excellent products, combined with distinguished Alcoa® Wrap packaging, have contributed primarily to this result.

Sparkling, eye-catching Alcoa Wrap aluminum foil not only does a terrific job as a "silent salesman" . . . air-tight, opaque foil envelopes also protect flavor and freshness—keep subtle ingredients at their fullest natural strength, shut out flavor-damaging light rays.

BONUS! 48 Packages per Square Foot! Compact Alcoa Wrap envelopes save valuable shelf space. This means stores can give the envelopes better display, can keep larger stocks on hand.

What's your Packaging Problem? If you want packaging that appeals to the smart modern homemaker . . . that has sales power when and where the buying impulse is strongest—check now with your converter for Alcoa Wrap.

You're always ahead with Alcoa . . . greatest name in aluminum



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gloomily commented: "They're setting the state of the art back 50 years."

But a few days later, a cool, professionally worded, four-page report of the Economic Committee was handed around the Finance Committee table.

It concluded—for one thing—that the Administration has been following the correct policies to combat inflation—including tight money, which Democrats had been criticizing bitterly. Democratic members of the committee viewed the report with misgivings; Republicans praised it. The report did not settle an issue as complicated as tight money, of course—but nobody tried to brush it aside or minimize its importance.

• **Mixed Grill of Signers**—There are several reasons why the committee's reports pack more punch than is apparent on the surface. One is that they are signed by members of both parties, and by a wide assortment of liberals and conservatives.

The study that upset the Finance hearings, for example, was signed by every member of an economic subcommittee on fiscal policy.

Bipartisan unanimity of this kind is a growing tradition in the committee. Indeed, one of the most impressive achievements of the staff is its demonstration that economic analysis has a power to draw Republicans and Democrats, conservatives and liberals, to a common meeting ground.

• **Influence of Taft**—More than any other man, the late Sen. Robert A. Taft, was responsible for establishing the professional tone of the committee's work. He kept it from becoming merely a sounding board for partisanship, as most people thought it would be. He was its first chairman. He selected its first staff director: Dr. Charles O. Hardy of the Brookings Institution.

Hardy died the year following his appointment. After another year in which Theodore Kreps, on leave from Stanford University, served as staff director, the post went to Grover W. Ensley. Ensley served for the next seven years, until he resigned June 1 of this year to become executive vice-president of the National Assn. of Mutual Savings Banks in New York.

• **Experts Called**—It was under Ensley that the committee scored most of its successes and that the staff worked out the study methods that presumably will be continued by his successor. When given an assignment, the committee blocks out the particular subjects it wants covered, then calls on the best professional brains in business, labor, and the universities for background papers. These papers are published, often accompanied by a staff-written document in which the material is sharpened up. Hearings are then held



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in which authors of the background papers participate.

In the scholarly atmosphere scrupulously maintained at these hearings, economists exchange views with the same freedom they would have in a university seminar.

This method has produced some landmark economic studies, notably the inquiry into money and credit conducted by Sen. Douglas; an inquiry into general credit control and debt management conducted by Rep. Wright Patman (D-Tex.); and last year, a sweeping study of the economic factors in tax policy, by Rep. Mills.

• **Annual Chore**—The committee handles its one routine job each year the same way—its assessment of the President's Economic Report to Congress, which is prepared by the Council of Economic Advisers. The President's report is required by the Employment Act, and the committee in turn is required to hold hearings regarding it.

What results is a critical assessment by the committee, the staff, and outside experts of what the Council of Economic Advisers has told the President regarding the state of business.

• **Patman's Feat**—Patman's role in the committee is particularly illuminating. He has been for years a severe critic of the Federal Reserve and a consistent advocate of low interest rates. When he undertook the credit and debt management study, it was generally assumed that he would try merely to support his own views. Instead, he turned out a study that is accepted as a classic by scholars in the field. Witnesses praised his "impeccable conduct" as chairman, and experts rated the background information developed under his guidance as indispensable to a grasp of the subject.

Patman is now chairman of the committee, and is playing a leading role in developing new lines of study. The staff considers Patman a strong and able defender of its professional status. His increasingly active role is a symbol of a basic shift in the committee. In addition to the spending and agriculture projects, the committee has recently published a comprehensive study of productivity, prices, and wages (BW—Jul. 6 '57, p. 28), and a new study of Soviet economic growth. As chairman of a subcommittee on economic stabilization, Patman has taken the lead in studies of automation.

• **House Influence**—In the early years, the committee was dominated intellectually by members of the Senate: Taft, O'Mahoney, and the former professor of economics, Douglas. Now there is a mounting spirit of leadership from the House of Representatives, demonstrated by Patman himself, Mills, Rep. Richard Bolling (D-Mo.), and Rep. Thomas B. Curtis (R-Mo.). **END**



1 During loading, radio dispatcher instructs driver where to deliver ready-mix concrete.



2 Driver is enroute with load when he is reached by roving supervisor who has recently visited the job.

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Here you can see how Harry T. Campbell Sons' Corp., heavy construction and transit-mix firm in Baltimore, uses two-way radio. But applications and benefits are so many and varied that it would take a book to list them. What we hope you will do is reflect a moment on your own operations to see if you can visualize one or more ways Bendix 2-Way Radio might be applied, and then contact our Bendix Radio Division, Mobile Radio Sales Dept., Baltimore, Md. A specialist is available to study your problem and answer any questions you may have.

Bendix background in communications radio for aircraft, railroad, automotive and industrial applications is unmatched so you can absolutely depend on the performance and quality of Bendix 2-Way Radio equipment.

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3 Supervisor tells driver they have enough concrete at original destination and directs him to another job.



4 Driver arrives when concrete is needed. Delay is eliminated. Possible total loss is converted to total profit.

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House Subcommittee Plans

Inquiry on Cigarette Filters

A Congressional subcommittee, headed by Rep. John A. Blatnik (D-Minn.), will look into the effectiveness of cigarette filters. The purpose is not to reopen the scientific dispute about whether excessive smoking contributes to lung cancer, but to examine advertising policies of cigarette manufacturers.

Blatnik, a heavy smoker himself, says the cigarette-smoking public is paying an extra \$500,000 daily for filter tips. He plans to get scientific medical testimony on filters' effectiveness in protecting against harmful effects of smoking. He also will call on the Federal Trade Commission to report on what it is doing to determine whether false or misleading advertising claims are being made for filter tips.

• • •

CAB Issues Report

On Near-Collisions in Air

The Civil Aeronautics Board this week reported that 5,200 persons were aboard 331 planes that nearly collided in the first three months of this year.

Military pilots reported 172 near-collisions and civil pilots 159. The report adds that 312 of the planes were in controlled airspace and 132 were arriving or departing from airports with control towers. In most cases, pilots reported a second plane closed to within 1,000 ft. of their craft; in 71 incidents the distance was estimated at 100 ft. or less.

• • •

Enough Nickel in Five Years

For Civilian and Military Markets

The government believes the end to the nickel shortage will come probably by 1962, certainly by 1965.

The tipoff came last week, when the General Services Administration confirmed that it had turned down International Nickel Co.'s bid for one of Washington's incentive purchase contracts.

The Administration has tried to ease the shortage by:

- A 50% boost in the goal for facilities eligible for fast tax write-offs—from 300-million lb. annually to 440-million lb.
- Expansion of the government Nicaro, Cuba, plant to 50-million lb. a year.
- Deferment of all stockpile purchases.
- Continuation and expansion of incentive contracts to purchase nickel at premium prices, to accept other quantities "put" to government by producers, and to underwrite unusual development costs in experimental plants.

Now all these programs are being shelved, except that the government will continue to defer taking metal for the stockpile. The turndown of International Nickel's bid for a research and development contract plus similar rejections of proposed research loans, mean simply that the government thinks there will be enough nickel in the next five to eight years to tide over both civilian and military markets until new production gets rolling.

This doesn't mean that there will be flatly no more government purchase contracts. It does mean there will be very few. Also, the Commerce Dept., at Congressional insistence, has tightened up its military allocation priority regulations.

• • •

Ice Pack Near Arctic Radar Bases

Spurs New Hunt for Northwest Passage

Canada and the U. S. will make a stab at finding the fabled Northwest Passage. The project is to be a part of the annual joint supply operation to the Dewline Arctic radar bases.

Plans are to send the Canadian icebreaker Labrador and three U.S. Coast Guard cutters through the passage around the first week in September. Right now, there is only a 12-mile uncharted sector that prevents passage of ships between the Atlantic and Pacific Oceans, but that sector lies in the narrow, rugged Bellot Strait.

There is a solid reason for hunting the route. If the ice pack moves in too early on the Pacific side near Point Barrow, Alaska, it blocks the exit of supply ships sent in to the Dewline posts. This year, the ice pack is the worst in history, and between 30 and 40 ships supplying the northern posts could be trapped for the winter.

Right now, it's a race with time each year for the Military Sea Transportation Service arm of the Navy to shuttle in 300,000 tons of supplies to more than 50 bases strung across the Arctic. The first ships head north around midsummer, the ice forces them out again by the end of September.

• • •

Refusal to Split Hawaii Trade

Involves Government in Monopoly Charge

A charge has been leveled that the government is supporting "a near perfect monopoly." It came when the Federal Maritime Board turned down a request by Pacific Far East Line, Inc., of San Francisco, to tap the plush Pacific Coast-Hawaiian trade.

PFEL immediately charged that Matson Navigation Co. carries over 95% of the cargo moving between Hawaii and the Pacific Coast, and as such has a near monopoly on the trade. PFEL has filed appeals with the Maritime Board and the federal courts.

The board ruled mainly on the basis that Matson, a domestic non-subsidized line, should not be subject to competition from a subsidized line.

This week, ocean freight rates from the U. S. to Hawaii were hiked 15% by all American flag ships servicing this route. Specific commodities had lesser rate increases. Pineapple, for example, got only a 6.9% rate boost.

FLIPPED... but **NO FLAME!**



Rubber Coated Fuel Tanks Resist Crash Impact, Reduce Fire Risk!

Proved two years running at Indianapolis Speedway, fuel tanks with a special rubber outer-coat held together in severe crashes even though the tank metal split.

The coating employs a THIOKOL liquid polymer as its base. Applied like paint, it cures to a tough, solid rubber at normal temperatures.

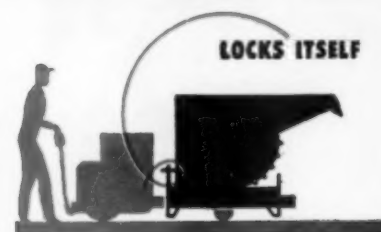
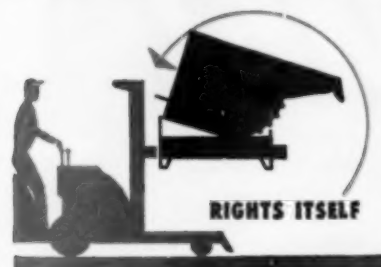
THIOKOL liquid polymers have long been used in sealants for the interiors of aircraft fuel tanks, and in marine and building caulking compounds. The versatile polymers also have wide applications in naval and industrial coatings and paints.

"Rubber Coat," the coating successfully used to protect fuel tanks against crash impact, is manufactured with a THIOKOL liquid rubber base by the Products Research Company, Los Angeles, Calif.

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Figure it out yourself. Compare the cost of this one-man semi-automatic operation with the time and labor involved in hand-unloading. The answer is obvious. Hundreds of leading industries have proved it... and are using thousands of Roura Self-Dumping Hoppers for handling wet or dry, hot or cold bulky materials.

Roura builds 'em rugged. They're made of extra heavy gauge metal with sturdy welded joints to stand up under the terrific knocks and bangs of rough handling. Fit any standard fork or platform lift truck. Also available mounted on live skids—casters with malleable or rubber tired wheels. Sizes from $\frac{1}{4}$ to 2 cubic yards.

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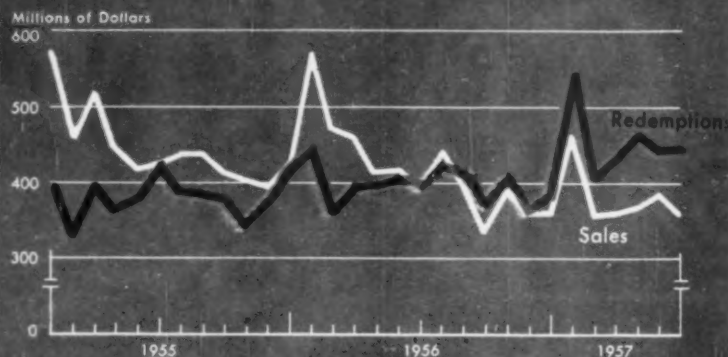
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U. S. Savings Bonds



Cash-ins Keep Rising

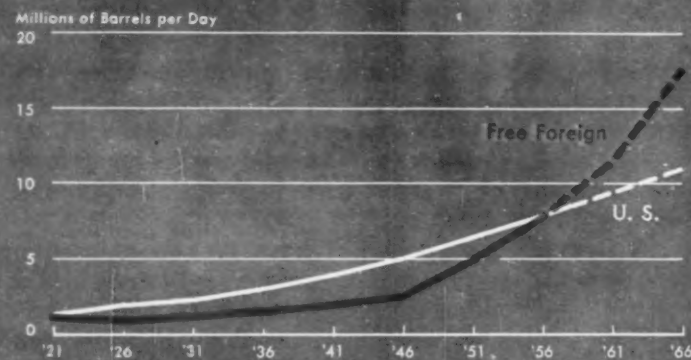
Redemptions of U.S. savings bonds continue to exceed new sales despite Treasury Dept. attempts to make them more attractive.

Combined sales of Series E and H Bonds for the first six months were 16% behind the 1956 period; redemptions (including accrued interest)

were up 14% in the same period.

Last April the Treasury announced higher interest rates on these bonds to bring them more in line with going yields on savings (BW-May 11 '57, p200). The new yield is $\frac{3}{4}$ % compounded semi-annually on bonds held to maturity.

Free World Petroleum Production



In the U. S., Growth Is Slower

Since World War II, petroleum production in the Free World has increased about 150%. In the U.S.

alone, it was up only 55%, but for the rest of the Free World the gain was 250%. The U.S. rate of increase is

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THIS AIRKEM DEVICE ENDED AN OFFICE MANAGER'S NIGHTMARE

That device is an "Osmetrol." It is designed to vaporize special Airkem Odor Counteractants into the air stream of an air conditioning system so that occupancy odors will be killed. Normally those odors are from cigarette smoke, food, perspiration and the many other residues of everyday work, living and play. Airkem units may be attached to both large and small air conditioning systems. Some installations have even reduced air conditioner operating costs by increasing the use of recirculated air.

At Gutta Percha & Rubber, Limited, in Toronto, Canada, the office was plagued by the odors of rubber and processing chemicals. The firm manufactures a wide variety of industrial rubber products including conveyor belting, all types of industrial hose and extruded and molded rubber goods. But the air conditioning system sucked in all the odors from the operation and made working conditions difficult in the office building on the plant grounds.

Airkem was asked for help. An Osmetrol was installed in the air

conditioning system and the change was noticed immediately. Results were so good that management commented that the odor condition was remedied and working conditions were excellent. Airkem installations are generally made to treat less aggravating conditions, although there are Airkem odor counteractants to treat such annoying odors as fish, sulphur dioxide and even fried onions.

Mail in coupon for free survey or for additional information. There's no obligation.

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Send me more information on: ☐ Air Conditioner Installations

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Odor Control is a Profit Builder for hospitals, restaurants, bars, confectioners, paper mills, and many other industries and institutions.

Parts as previously made	Parts now made on multiple-plunger presses	Savings effected by redesign
		25% to 30%
		25% to 30%
		Over 50%
		Over 50%

DO-IT-YOURSELF may be costing you money

The savings shown above indicate what often happens when manufacturers stop making parts like these themselves and dump the problem in the lap of The American Brass Company.

The Fabricated Metal Goods Division of American Brass has specialized equipment for the economical production of such parts. It has thousands of stock tools which may save costly tool charges. It has experienced design engineers and toolmakers who may be able to suggest simplifications to save more money.

Choice of metal and finish. Parts are produced in copper, brass, bronze, nickel silver, nickel, iron, steel, stainless steel, and aluminum—in a wide variety of finishes, including plating.

Find out how Anaconda can save you money. Just send a sample, or a drawing, or a description — together with the quantity you need, the metal to be used, and other pertinent data. Address: The American Brass Company, Fabricated Metal Goods Division, 1000 Crane Street, Waterbury 20, Conn.



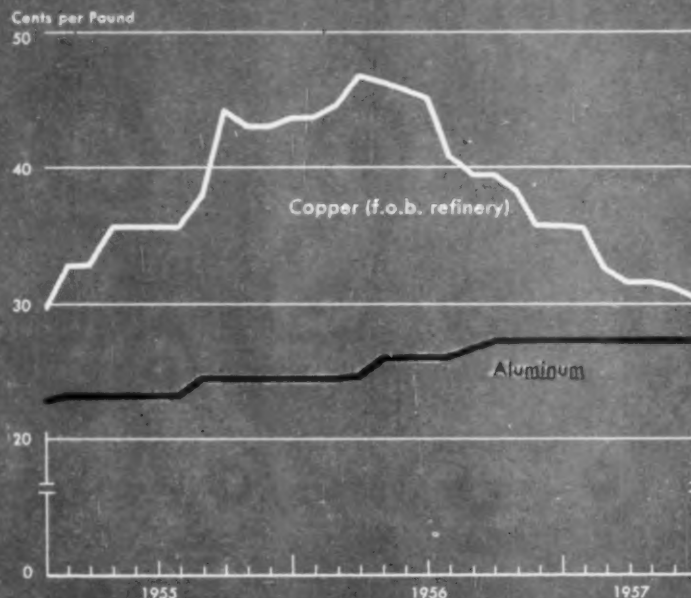
expected to continue slower, says the Petroleum Dept. of the Chase Manhattan Bank. Demand, too, is expected to grow faster outside the U.S.

Last year the U.S. share of Free World output dwindled to 51%, compared with 73% in 1941. The Chase estimates that by 1961 the U.S. share of Free World supply will be only 46%,

and that in 10 years it will be 39%.

These shifts are dominated by the ever-expanding output from the Middle East's bounteous fields. However, the declining U.S. share traces partly to the desire to conserve our reserves (while the steadily rising drilling cost, as wells go deeper and deeper, is also a restraining factor).

Copper and Aluminum Prices



Data: E&M Metal and Mineral Markets.

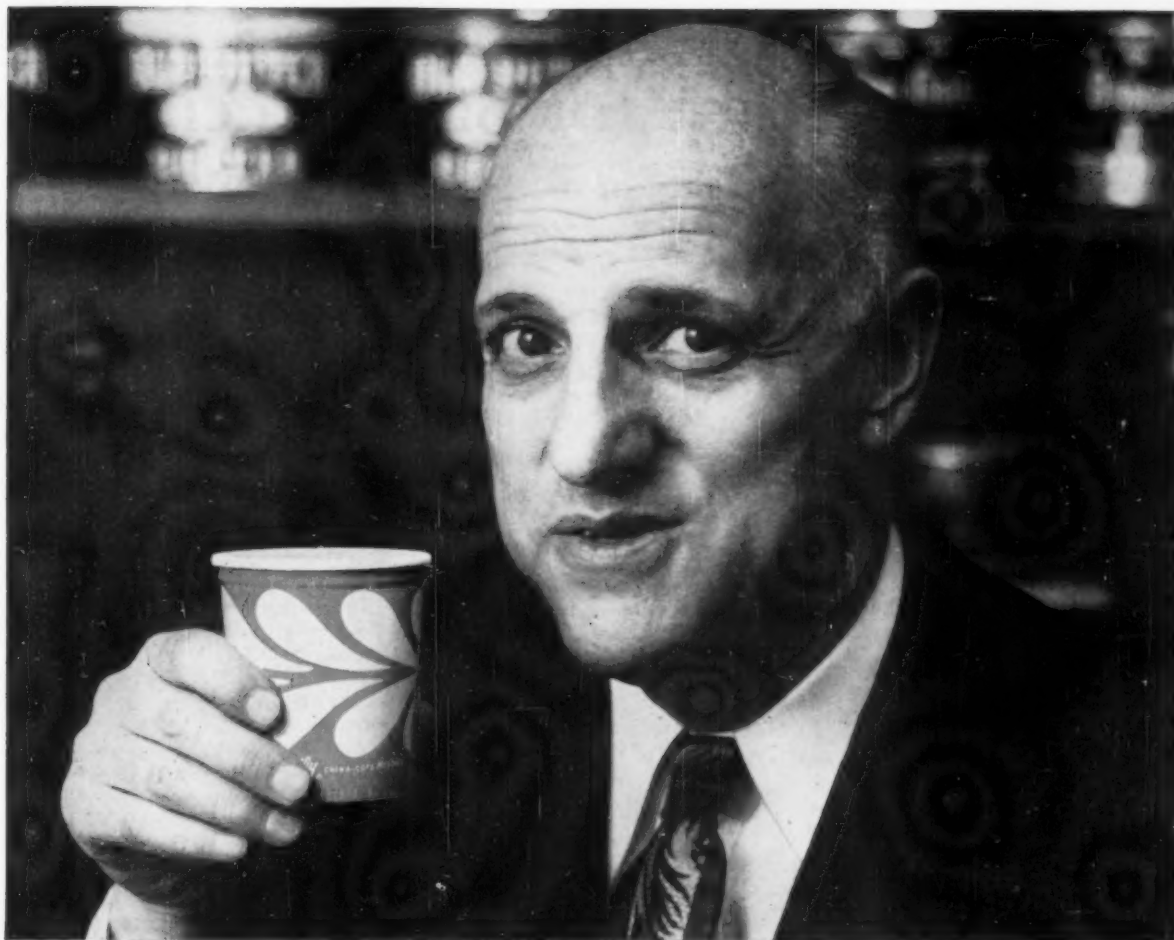
Supply Cuts Copper Price

A three-fold rise over last year in domestic inventories of refined copper has sent the price down, making copper more competitive with aluminum. In June, refined copper was selling in the domestic market at 30.33¢ per lb., f.o.b. refinery—down 33% in a year. Last week it dropped to 28.78¢. Last year's price was inflated because of shortage of the metal early in the year (a situation that carried over from 1955) accompanied by high demand. With the easing of supply in the second quarter the price began to move downward.

Chile is believed to be the key to copper prices at this time, E&M Metal and Mineral Markets reports,

and Chile is unlikely to cut output unless her inventories begin to pile up.

Copper prices are currently very close to the level of aluminum (though pound-for-pound comparisons are by no means an exact measure for competitive purposes). Aluminum has held to 27.10¢ per lb. for 10 months despite increasing supply and lagging demand. This situation has caused some producers to hold up expansion plans. An increase in the aluminum price in August has been rumored despite the inventory situation. Producers would like to follow the procedure of the steel industry, raising prices to compensate for the forthcoming wage increase of around 7%.



In on-the-spot comparison test...

EMINENT COFFEE PRESIDENT PROVES NEW LILY CHINA-COTE CUP SAVES THE FLAVOR OF COFFEE SERVED TO YOUR EMPLOYEES

Greet Frederick Kohn, President of Old Dutch Coffee, pictured at the moment he first tasted his delicious coffee in the remarkable Lily® China-Cote Cup.

Mr. Kohn's comments bear repeating: "This firm, fine looking cup truly retains the original, freshly brewed flavor of our coffee. What's more, the coffee stays drinking-hot far longer." Conclusive proof that the China-Cote Cup...

Saves the flavor! Resists penetration of coffee into the paper.

Saves the heat! Keeps liquids 10° hotter in a ten minute period.

Saves the shape! Remains sturdy in the hand, even under rough and rugged use.



Lily worked ten years on the problem of developing a truly satisfactory cup for the serving of coffee, tea and other hot liquids. The answer was a plastic inner coating—similar to real china.

Everyday, more and more leading executives concerned with employee morale are conferring with their in-plant feeders and vending operators or writing us direct for China-Cote details. Indeed, many have requested—and received—a *personal* comparison test. Naturally, all tests, samples and information are without obligation. Just write us on your letterhead.

Lily-Tulip Cup Corporation, 122 East 42nd Street, New York 17, N. Y.

DOW CORNING

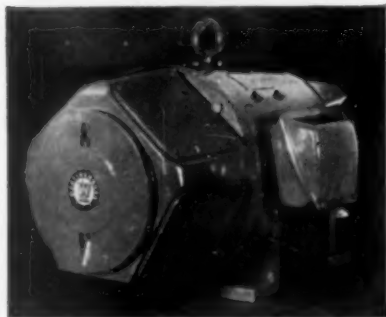
SILICONE NEWS

New Spice for Sales Recipes

- Silicones up life-expectancy of motor insulation
- More churn astern with Silicone-protected outboard
- Silicones get a "well done" from oven buyers

HOT COMPETITIVE CLIMATE — In today's increasingly competitive markets, many manufacturers are calling on Dow Corning Silicones to supply an extra product value. Here are several new examples of how alert marketers are using silicones to improve performance.

MOTOR MAKES BIG NEWS — A new line of standard dc motors, the Life-Line "H" series, has just been announced by Westinghouse Electric. The insulation in these motors has 10 times the life of insulation in other motors in their class. The new motors provide much faster acceleration and reversal, and promise big reductions in maintenance!



How does Westinghouse achieve these advantages? A silicone insulating system that provides the motors with greater reliability. Although rated at standard temperature rises, Silicones withstand high ambient temperatures and moisture . . . motor trouble due to insulation breakdown is practically eliminated.

Dow Corning silicone insulation plus a highly efficient design make the new Westinghouse motor ideal for automated processes. Here, where the failure of a single motor can shut down whole assembly lines, Life-Line "H" performance will keep production humming. It's calculated to keep Westinghouse sales humming, too.

LITTLE PLUG HELPS MAKE SALE Frequently, in large appliances, a single "plus" feature will sell brand "A" over brand "B". Just such a plus for kitchen ovens is a new plug-in meat thermometer made by King-Seeley Corporation of Ann Arbor, Michigan. A real help to the house-



wife, it translates meat heat into electrical impulses, so she reads on a dial how well her roast is done.

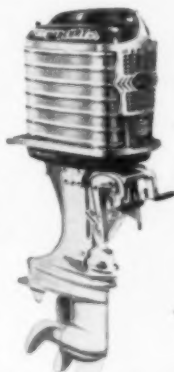
Silastic*, the Dow Corning Silicone rubber, plays an important part in making this handy unit possible. Silastic resists prolonged heat up to 500 F . . . a temperature that ruins regular rubber. That's why the flexible lead wire is covered with Silastic, and the sealing washers are fabricated from it.

First offered by Philco, this clever and durable thermometer is now a feature of Hotpoint, Magic Chef, Cribben & Saxton, and other ranges. Another example of how silicones help sell!

*T.M. REG. U.S. PAT. OFF.

SMOOTH PUTT — The outboard motors that used to be "putt-putts" have grown up into powerful engines. The newest and strongest production outboard carries a whopping 60 hp rating . . . enough to drive a small car! This motor, the "Mark 75", is produced by Kiekhaefer Corporation, makers of the Mercury line.

To help keep the Mark 75 and the eleven other Mercury models running smoothly — come cold, hot, or wet weather — Kiekhaefer employs Dow Corning Silicones. Several rubber, metal, and ceramic parts within the motors are coated with a water repellent silicone compound. The silicone coating preserves, protects, lubricates, and helps prevent short circuits. Here's a case where Dow Corning Silicones assure a steady purr from both motor and satisfied customer.



BABY BILLBOARDS — A slick trick for keeping your company name where it will be seen: give-away packets of Sight Savers imprinted with your sales message. Sight Savers—the Dow Corning silicone treated tissues for cleaning eyeglasses—are purchased and used regularly by millions of adults. Over 70% of your customers and prospects wear glasses, and glasses need cleaning often. What more logical place to put your message than where it will be repeatedly seen and appreciated? Imprinted Sight Savers are available in any quantity, at a surprisingly low price.

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FINANCE

The Commercial Banks at Midyear: A SAMPLING

	DEPOSITS									
	Amount (In millions)		Change	Percent in Loans		Percent in Cash & Gov'ts		Ratio: Deposits to Capital Funds		
	June 30, 1957	Dec. 30, 1956		1957	1956	1957	1956	1957	1956	
American N.B. & T. (Chi.)	\$339.9	\$367.3	— 7%	38%	32%	63%	68%	21:1	24:1	
American Trust (Charlotte, N.C.)	153.9	181.5	—15	40	39	62	62	12:1	15:1	
American Trust (S.F.)	1,454.9	1,486.9	— 2	59	56	42	45	13:1	14:1	
Bank of America (S.F.)	8,937.2	8,993.2	— 1	60	60	38	38	16:1	16:1	
Chase Manhattan Bk. (N.Y.)	6,693.7	6,927.7	— 3	61	57	42	45	11:1	12:1	
Citizens N.T. & S. (L.A.)	459.6	450.0	+ 2	42	40	59	59	16:1	15:1	
Cleveland Trust Co.	1,338.5	1,389.4	— 4	57	53	43	47	14:1	15:1	
Detroit Bank & Trust Co.	925.6	950.9	— 3	41	39	55	56	15:1	16:1	
First American N.B. (Nashville)	216.9	239.3	— 9	48	44	54	53	15:1	17:1	
First & Merchants (Richmond)	216.4	217.2	—	38	39	63	63	13:1	16:1	
First National (Akron)	212.1	231.0	— 8	46	41	60	60	15:1	17:1	
First National (Atlanta)	364.3	371.0	— 2	52	49	52	52	13:1	13:1	
First National (Birmingham)	297.7	313.3	— 5	45	41	53	57	13:1	13:1	
First National (Chi.)	2,549.1	2,649.0	— 4	61	57	44	47	11:1	11:1	
First National (Cincinnati)	375.0	398.8	— 6	57	54	50	52	10:1	11:1	
First National (Dallas)	625.6	793.2	—21	55	46	51	58	11:1	15:1	
First National (Fort Worth)	207.9	254.6	—18	53	44	52	54	15:1	18:1	
First National (Kansas City)	262.4	310.9	—16	37	33	65	71	12:1	15:1	
First National (St. Louis)	528.7	611.1	—13	56	51	50	54	11:1	13:1	
First National (St. Paul)	304.0	333.8	— 9	53	51	51	52	10:1	11:1	
First National City (N.Y.)	6,614.2	6,672.4	— 1	59	56	43	46	11:1	12:1	
First Penna. B. & T. (Phila.)	946.2	1,026.0	— 8	61	54	48	52	11:1	12:1	
First Wisconsin N.B. (Milwaukee)	561.6	651.3	—14	51	44	52	58	15:1	17:1	
Girard Trust Corn Exch. (Phila.)	553.0	587.0	— 6	66	62	45	45	9:1	10:1	
Guaranty Trust Co. (N.Y.)	2,457.1	2,542.7	— 3	63	62	49	50	6:1	6:1	
Hartford N.B. & T.	372.0	395.6	— 6	49	42	48	55	12:1	13:1	
Hibernia N.B. (New Orleans)	182.8	206.1	—11	39	37	59	61	16:1	19:1	
Industrial N.B. (Providence)	420.1	444.8	— 6	60	66	37	41	11:1	12:1	
Mellon N.B. & T. (Pittsburgh)	1,721.4	1,736.2	— 1	60	54	46	47	7:1	7:1	
Merchants N.B. & T. (Indianapolis)	183.9	201.9	— 9	39	35	62	67	12:1	13:1	
Nat. Bk. of Commerce (Houston)	311.6	361.7	—14	46	40	55	60	12:1	15:1	
Omaha National Bank	211.3	252.2	—16	46	43	57	57	11:1	13:1	
Republic N.B. (Dallas)	662.9	781.4	—15	59	57	49	51	8:1	10:1	
Seattle-First National Bank	782.3	840.7	— 7	55	51	41	46	12:1	13:1	
Valley National Bk. (Phoenix)	428.3	411.9	+ 4	59	55	43	43	14:1	16:1	

© BUSINESS WEEK

More Deposits Turn Into Loans

With money tight, funds on deposit are being worked harder. Some analysts see dangers, but bankers contend that loans, getting more costly to borrowers, are also remaining selective. Meanwhile, bank earnings are up.

THUMB THROUGH the midyear statements flowing forth from the nation's commercial banks this week. You'll note the bankers are still pouring every available dollar into loans. And since the tight money policy of the Federal Reserve has held down the growth of deposits this means that most bankers have been shoving larger-than-ever percentages of their deposits into loans.

At midyear, 17 of the sampling of 35 widely scattered banks that are listed above had 55% or more of their deposits in loans, and eight had actually lent 60% or more of their deposits. At the close of last year, only 10 had 55% or more of deposits in loans, and only four had a loan ratio of 60% or more.

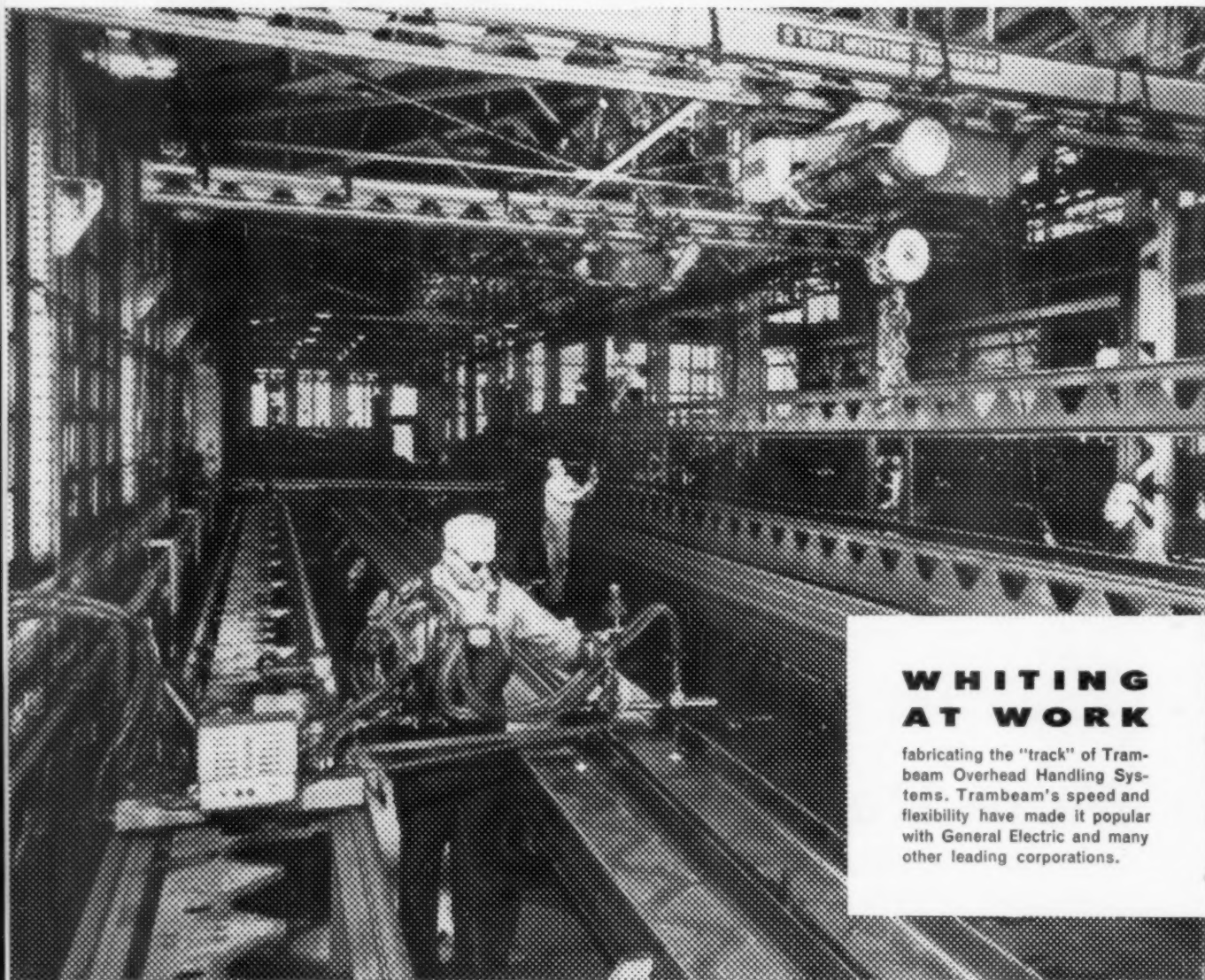
The pressure of demand by borrowers has lowered cash resources of the banks and also forced banks to continue sell-

ing government bonds for money to make loans. This has pushed down the ratio of "riskless assets" (cash and governments) to deposits. At midyear, only 11 banks in the sampling had at least a 55% ratio of riskless assets to deposits; six months earlier, there were 15.

• **Signs of the Times**—Many bank analysts view these ratios as important indicators of the pressure the banking system is under. Some of these observers frown on the steadily rising loan ratios and the declining ratios of cash and governments to deposits. When the riskless assets decline in favor of loans, these analysts say, it could mean that some banks are edging onto thin

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INCLUDING 87 OF THE TOP



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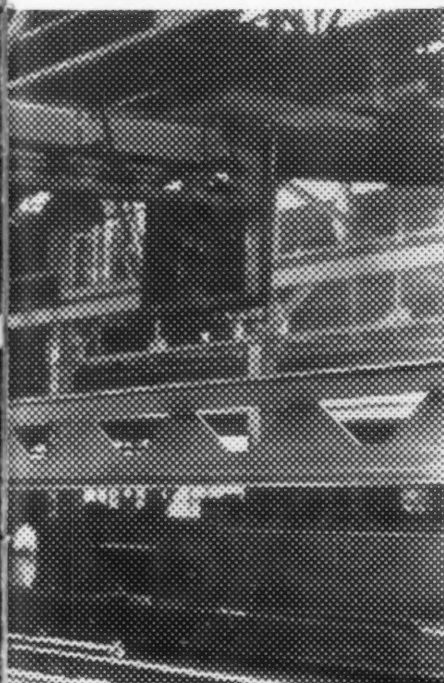
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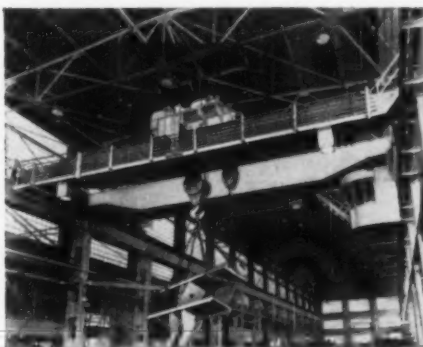
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ice. Bankers reply that what counts is not the quantity of loans, but the quality—and they insist they're keeping quality high.

Nevertheless, when loans reach 60% of deposits, the banks are close to what they consider the limit, though bankers are revising their traditional ideas about the high-water mark for the loan ratio and the low-water mark for the riskless assets ratio. Helping to change their minds, of course, is the customers' unslaked thirst for loans.

• **Loan Demand**—At midyear, business loans by the weekly-reporting banks had risen from \$30.8-billion at yearend to a record \$32.1-billion. This \$1.3-billion increase compares with a rise of \$2.2-billion to \$28.8-billion in the same period the year before, so it may seem that loan demand is topping off. But bankers say it isn't necessarily so. The more likely reason for the apparent easing is that bankers simply don't have funds enough to meet all demands.

Continuing demand for loans in the face of a short supply of money, bankers say, is bound to force interest rates on bank loans up a notch, probably around late August or shortly thereafter. That's not just a regional opinion; the same beliefs are noticeable across the nation, according to a survey by BUSINESS WEEK reporters.

• **Prime Rate**—Right now, the prime rate in the larger cities is 4% a year. This is the rate paid for money by the very best credit risks. Relatively few borrowers can command the prime rate today. Poorer risks are shelling out up to 6%.

Bankers around the country generally agree the prime rate will rise soon after the Treasury's refinancing of \$12-billion of nearby maturing securities (page 26). But they're not at all sure if the Federal Reserve is going to hike the discount rate. This is the rate—now set at 3%—that the Fed charges member banks on loans. If the Fed raises this rate, the bankers will have an excuse to lift their prime rate.

• **Supply of Funds**—As the compilation (page 115) shows, in the first half of this year, deposits declined from the yearend—although they were up somewhat from the year-ago levels. The first-half drop was seasonal in part, but bankers attribute it also to the Fed's tight money policies.

In the tight money situation, corporate liquidity was reduced, thus cutting normal business deposits. Companies that had been flush with cash have lately pulled much of their no-interest deposits out of banks and placed it instead in high-yielding short-term investments. Individuals also have been putting their idle cash to work at higher "wage" levels.

To try to hold some of these deposits, banks during the first half of 1957

IDEAS FOR PROFIT IN INDUSTRY

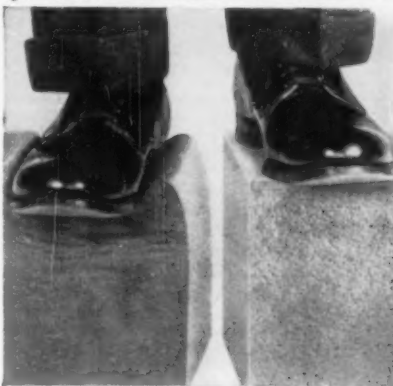
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raised their interest rates on time (savings) deposits. In New York, such rates recently rose from 3% to 3½%.

• **Not So High**—Most borrowers complain noisily about the rising cost of money. But the bankers say the present levels of interest rates are historically moderate. Back in the 1920s, for example, the commercial paper rate ran around 6% to 7½%; it's averaging 4% now. Also, the bankers remind complaining borrowers, until 1930 no Federal Reserve Bank ever set a discount rate below 3%.

• **True Cost of Loans**—Whether or not the corporations are willing to pay the price for money with an understanding smile, there's more to the borrowing rate than meets the eye.

Bankers these days are insisting on more rigid adherence to the requirement that borrowers keep "commensurate" balances on deposit with the banks, usually from 10% to 20% of the amount borrowed. Actually, the banks use the rule to screen out the poorer risks for loans by demanding higher balances.

This requirement has two important effects on bank operations: (1) It enables a bank to make more loans than it otherwise could, (2) the return to the bank on the loans is higher than the rate would indicate, since the borrower is paying interest on a larger amount than he actually gets to use.

Bankers have also met temporary loan demand by making short-term borrowing at the Fed. Last week, for example, these advances totaled about \$1.2-billion. However, the Fed frowns on letting individual banks become chronic borrowers.

• **Fattening Profits**—The rise in earnings that most banks experienced in the first six months came from the increase in rates on loans and new investments, and the switch to loans from lower-paying government bonds and investments. The major New York City banks are leading the pack with an average increase of better than 14%. By yearend, they should show a rise of about 12% over 1956 results, according to Chandler Robbins, vice-president of M. A. Schapiro & Co. Inc., bank analysts.

The New York banks could well show a better earnings rise than the rest of the country, partly because they handle a greater volume of trust business—a volume that has been growing. The Bank of New York, for example, had noninterest-nondividend income of \$2.4-million for the six months ended June 30—almost \$340,000 better than the year-ago figure.

• **Some Declines**—Not all banks enjoyed first-half earnings increases. Notable exceptions to the nationwide upsurge occurred among the California banks. An increase from 2% to 3% in



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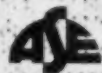
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interest rates on deposits took a big bite out of their earnings. The giant Bank of America reported a first-half earnings decline to \$35.1-million, or \$1.37 per share, from \$36.9-million or \$1.44 per share, the year before.

In dissecting current operating earnings generally, one thing must be kept in mind: The same rise in money rates that boosted earnings has pushed down government and corporate bond prices. The First National City Bank of New York, for instance, recently informed stockholders that, because of the slide in bond prices, it had suffered an \$80-million paper loss in its government bond holdings.

Because of this factor, many banks have been actively engaged in switching operations to establish tax losses to hold earnings "in line" and to benefit from any subsequent upward trend in Treasury issues. Much of the banks' government holdings, moreover, is in relatively short maturities, so it won't be too long before Uncle Sam has to pay off at par.

• **Operating Costs**—Still another question mark shadows the bright earnings outlook: Operating costs still are rising.

"Keeping costs down is our biggest worry," laments a top Eastern bank executive. He explains: "It's easy to build in fixed expenses when business is on an upswing, but when rates are going down, it's mighty hard to decrease costs."

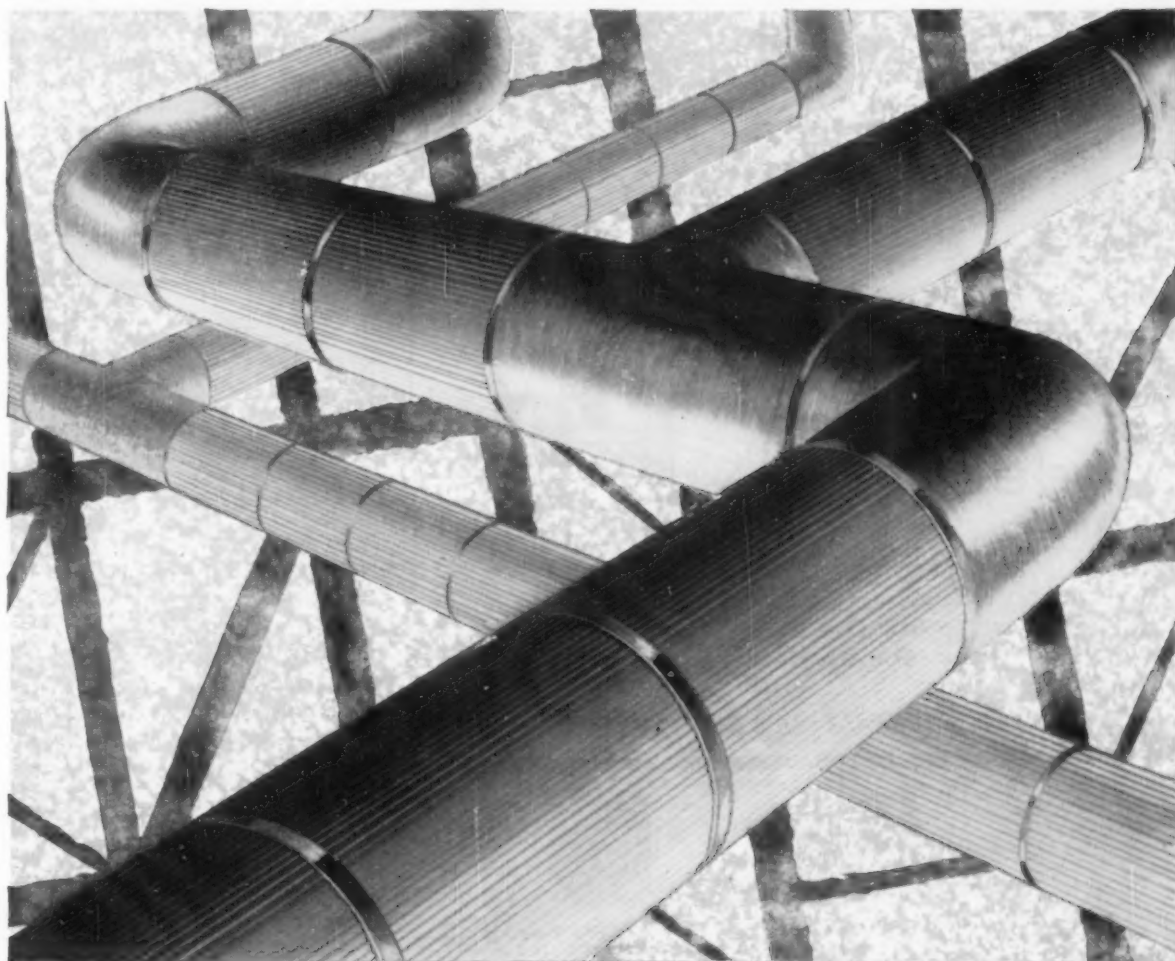
This banker doesn't predict any significant easing in loan demand or slide in borrowing rates in the foreseeable future, but feels there'll eventually come a day of reckoning. No banker is willing to venture when this day will arrive. Says one Chicago bank official, "It would take a pretty good recession to keep loans from going up."

But some bankers fear that even a temporary easing of loan demand might permit operating costs to close the gap on profits.

• **Building Up Capital**—Some banks have brought out new stock issues to build up their capital and increase their lending limits, which are geared to their capital funds (capital and surplus for national banks). First National City Bank, for example, will have improved its ratio of deposits to capital funds from around 12:1 at the 1956 yearend to about 10:1 when it completes its \$120-million stock offering.

There is some talk that one or two other New York banks will follow suit. But bank stock dealers say the market can't absorb too big or sudden an influx of new bank stock, except at ruinous discounts. Although prospects for bank stocks are generally good, they are selling at relatively low price-earnings ratios. Thus, old shareholders look with disfavor on issuance of new stock because it waters down the value of their

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holdings. These pressures tend to discourage the banks from issuing new common.

However, the House of Representatives is studying the Financial Institutions Act of 1957, designed to modernize banking laws. Already passed by the Senate, the act permits national banks to issue preferred stock. It could create a new opportunity for bank capital financing without penalizing the old shareholders as common stock financing does.

FINANCE BRIEFS

Hurricane Audrey cost fire and casualty underwriters an estimated \$12.5-million. This is in addition to another \$23-million in insured losses stemming from tornadoes, hail, and windstorms in the Southwest, the National Board of Fire Underwriters reports.

A stock split is planned for the New York State mutual savings banks' own mutual fund. Institutional Investors Mutual Fund proposes to split its shares 10-for-1 to facilitate investment by smaller banks and simplify for all banks the problem of fractional shares.

Du Pont employees soon will receive their first stock certificate, for one full share, under the company's thrift plan. The company matches each employee dollar put in U.S. savings bonds with 25¢ of company money for investment in du Pont common.

Bill collecting is tougher this year, says Dun & Bradstreet. A spot check of 111 manufacturers by D&B revealed that 54 were having more trouble collecting than last year, while only four found it easier. The rest noted no change.

Turnover of checks for the first five months was 7.5% ahead of the 1956 period, the Federal Reserve reports. The \$986.3-billion total was the largest ever for the January-May period. FRB thinks that check spending for the whole of 1957 may top \$2.3-trillion.

A first-half spurt in life insurance sales means that 1957 as a whole should set another new record, says the Institute of Life Insurance. First-half sales were \$33-billion, up \$8-billion—or 30%—over the 1956 period.

Savings banks are growing faster than savings and loan associations, says Daniel W. Hogan, Jr., president of the Savings & Mortgage Div. of the American Bankers Assn. In the first four months of 1957, savings bank deposits increased by \$2.1-billion; S&L shares went up by only \$1.3-billion.



Are you ready for emergencies like these?

Now is the time to check your first-aid cabinet . . . for during the summer months there is a daily average of 280 accidental deaths, to say nothing of the almost endless number of burns, cuts, bruises and other injuries.

So, it is important to know *what to do* and *what not to do* in situations ranging from minor scratches or cuts to more serious injuries such as broken bones.

To treat minor cuts: most cuts heal quickly if cared for promptly, but can become serious if infection develops. The first thing to do is to wash the cut under warm running water. Then promptly apply

a mild antiseptic and sterile compress.

If iodine is used, remember that it becomes stronger with age and old solutions should not be applied.

To treat more serious injuries: falls cause many serious injuries, especially among young children and people age 65 and over. If you suspect a fall has caused a broken bone, do not move the victim unless absolutely necessary. Keep the patient comfortable and get medical care promptly.

If an accident occurs and you cannot determine its extent or seriousness, call a doctor. Describe the injury, tell him where

the victim is, what you have done and the victim's apparent condition.

With your description, the doctor can offer suggestions, decide how urgently he is needed and foresee what equipment he should bring.

To help you give the right care at the right time, Metropolitan offers its new first-aid chart. It tells what to do for many common emergencies—burns, cuts, fainting, poisoning and others. *It also features, with illustrations, the new method of life-saving to apply when someone is nearly drowned.*

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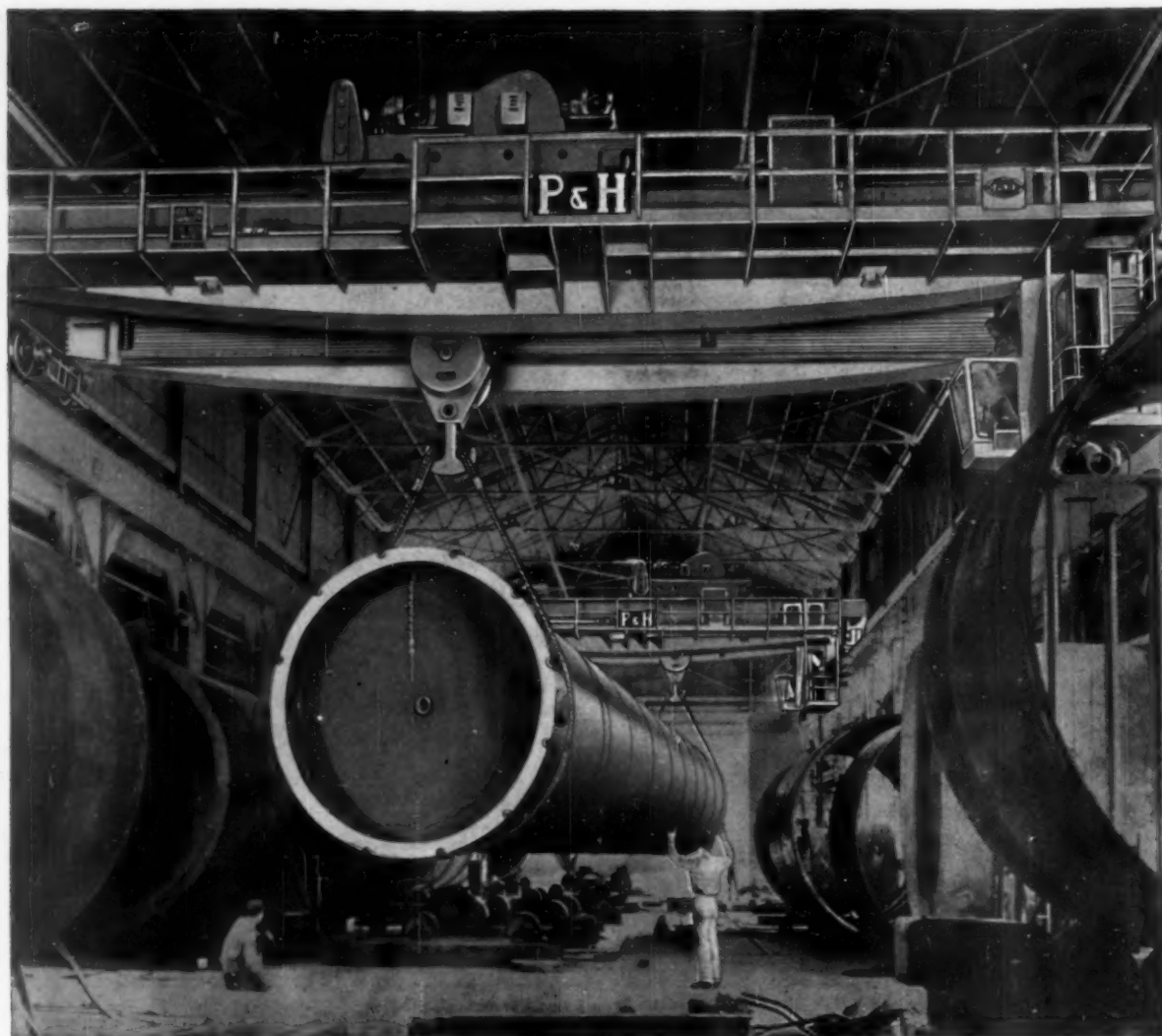


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WAITING CROWDS at New York's International Airport signal annual tourist rush to Europe; this year, despite an earlier slowdown...



European
Tourism



U. S. Tourist Flood Rebounds From Suez

THIS WEEK the New York Times printed a letter from an irate reader protesting the crowded conditions at New York's International Airport (above)—brought on, he said, by the "tribes" of relatives who turn up to see family members off on a European vacation. The good-byes, he suggested, ought to be said at home.

At the other end of the transatlantic air ferry, no one worries much about crowding U.S. gateways. For the 600,000 U.S. citizens who will probably truck off to Europe this year are the customers for Europe's biggest single dollar-earning industry.

And the crowds who get a vicarious travel thrill by seeing someone else off at the plane or ship are just another sign of the almost frenzied race by Americans who can afford it—and an increasing number seem to be able to (page 130)—to see the world.

• **Big Business**—There's no doubt that overseas tourism today—especially the half of all foreign-bound U.S. travel

that has Europe as its destination—is big business. For one thing, it's the stock in trade of one of the U.S.' oldest companies and largest travel organizations, the American Express Co. (page 132).

At the same time, the dollars Americans spend for transport and for goods and services while abroad is an important part of the world trade picture. Last year the total figure was \$1.8-billion—of which \$1.5-billion was earned by foreign steamships, airlines, hoteliers, and merchants. That's more than foreign countries earned from sales of petroleum to the U.S., or from coffee (BW—May 18 '57, p144)—both major foreign exchange earners for America's overseas customers.

• **Big Earner**—You get an idea what these expenditures mean to European earnings from this fact: In 1955, dollar receipts from U.S. and Canadian tourists in the 17 member countries of the Organization for European Economic Cooperation (OEEC) and Yugoslavia

totalled \$456.6-million—compared with \$2.9-billion earned by merchandise exports. In the same year, tourism provided 22.1% of all the "invisible" receipts earned by the OEEC countries.

For the future, travel is the item in all of Europe's invisible receipts that is likely to increase most. If Europe takes full advantage of the possibilities of tourism, the OEEC believes, earnings would surpass Europe's prewar investment income. This would mean that tourist dollars could help mightily in balancing Europe's deficit in merchandise trade—which in the past has been paid for by earnings from overseas investments and services.

• **Europeans, Too**—Add to the dollar tourists the rapidly expanding intra-European tourist boom (28-million people in 1955), and you can see why OEEC economists grow ecstatic over the possibilities. Tourism in Europe, by U.S. and European travelers together, has been increasing in recent years at the rate of 15% annually. If

For what it's worth...

Tabulating card records for property accounts

from the CLIENTS' SERVICE BULLETIN
of The American Appraisal Company

As the investment in fixed assets increases in size and complexity, the maintenance of accurate property records becomes increasingly important and involved. Many companies faced with this problem have found it advantageous to set up their property records or controls on tabulating cards.

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punching new data in fields affected by the change. Desired summaries and itemizations can then quickly be prepared through the use of tabulating equipment for purposes of property control, insurance, taxes, financing or accounting.

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the travel yen continues to grow at this rate, the tourist swarms would double by the early 1960s, reaching 50-million annually in OEEC countries.

• **Rough Spots**—But there are some rough spots on the travel road. The concentration of tourists—both U.S. and European—on a limited number of places of interest, difficulties of hotel accommodation, transport shortages, and the problem of “peaking” are growing with the industry. By “peaking,” European travel experts mean the high proportion of summer visitors for whom transport and hotels must be available—though these may not be used for the other eight months of the year.

And despite its importance in the European economy—employing 5% to 10% of the labor force, tourism doesn't get the emphasis it should in planning. Last year, for example, the Europeans spent less than 1% of all dollar receipts for promoting dollar tourism.

• **1957 Prospects**—This year the Suez crisis threw cold water on many tourists' plans. The total effect may not be so great as feared, but the expected 15% gain over 1956 in numbers of people traveling may be cut to 10% or less.

Here is what the main tourist countries are looking for:

France—the mecca of young Americans abroad—optimistically hopes for more than the 300,000 U.S. visitors in 1956. Last year U.S. and European tourists together spent some \$400-million in France, according to government estimates. Biggest bar to an increase of visitors is France's high price level, perhaps Europe's highest.

Italy—which may be replacing France in U.S. tourists' hearts—had 259,000 U.S. visitors last year, and is swarming with tourists this season. It's also target No. 1 for European travelers. Last year's 12.6-million visitors, both U.S. and European, spent an estimated \$500-million—17% over 1955 and equal to half of Italy's trade deficit.

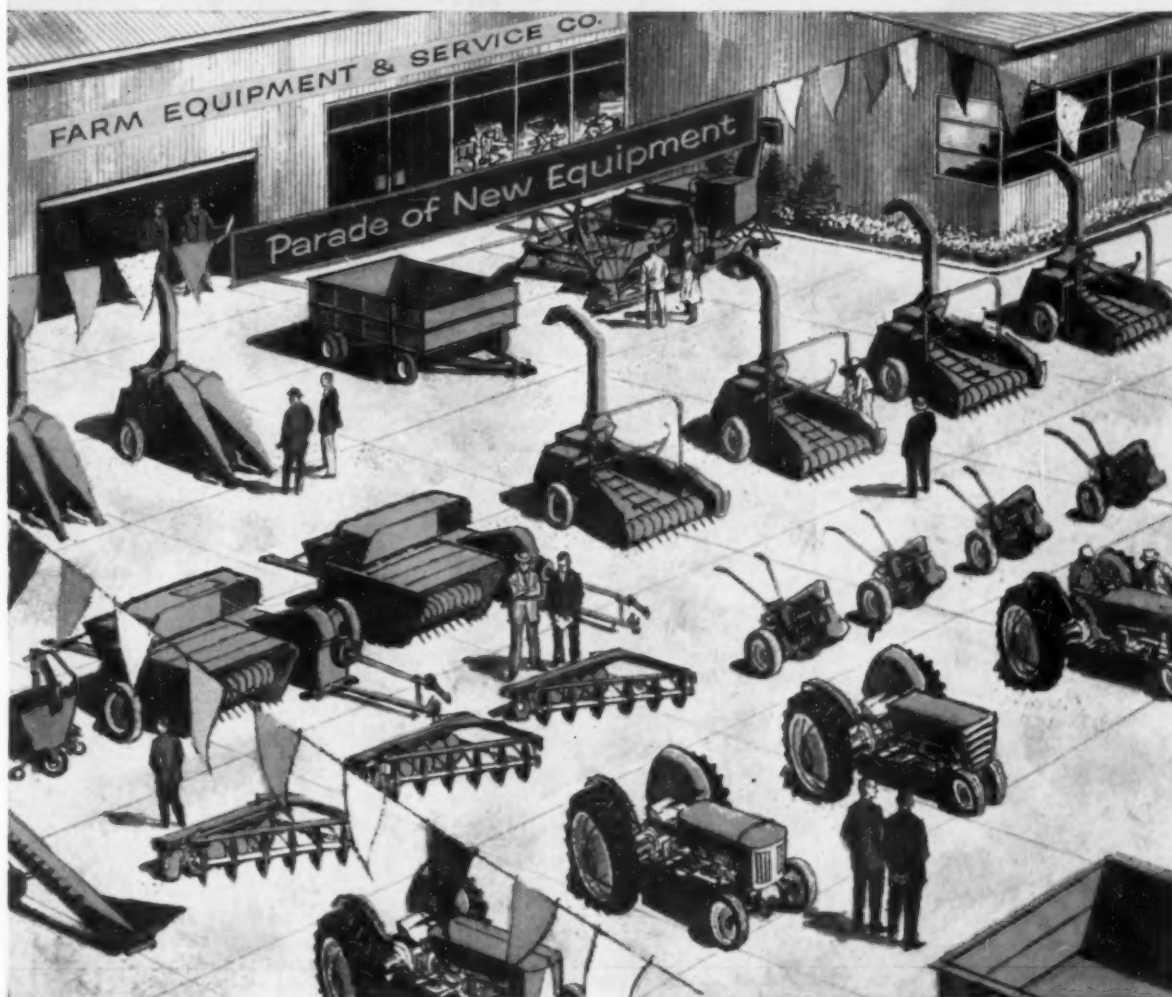
Britain has suffered from Suez. Tourist travel was off 12% in the first four months of 1957. London officials had hoped for an increase this year, but now will settle for a repeat of last year's 279,000 U.S. tourists. A quarter of Britain's tourists are Americans—but it's the Commonwealth visitors who stay longest and spend most.

West Germany doesn't need dollars as badly as others, but it welcomes tourists. Last year it had 4.2-million, 217,000 of them Americans. So far, Germany seems to be only a way station for Americans en route from the north to Switzerland or Italy—yet in their brief stopovers in 1956 they dropped \$82-million.

(For the story of who makes up today's army of traveling Americans, and how they spend their dollars abroad, turn to page 130.)

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U. S. Tourist, 1957 Model



The last time American tourists flocked to Europe on a big scale was during the 1920s. Fifteen pieces of luggage, a lazy ocean voyage, often six months to a year abroad, governesses and servants in tow—this, the Grand Tour, was not unusual then.

Today, the rich still descend on Europe en masse. But the middle-income and lower-income tourist—who got his start behind the opulent facade of the '20s—is now broadening the base of tourism more than ever and shoving European travel statistics higher and higher. The Grand Tour these days is often much less grand than it used to be. (It may be as short as a 17-day race through Britain, France, and Italy, including overnight transatlantic flights over and back.)

Who is this new tourist that gives up the quiet of a Cape Cod beach or a Minnesota fishing trip for the hectic planning and headaches of a European vacation? How does he act abroad?

- **True to Form**—One way or another, the American tourist never seems to have to skimp himself in Europe. In European eyes, he's the big spender—paying out an average \$900 while on the Continent. More than any time in the past 50 years, the tourist makes halfhearted attempts to adjust to local customs and habits. But at bottom he still likes Martinis and Scotch in countries where wine is cheap.

He claims he wants to stay off the beaten path—the Eiffel Tower, Flea Market, Notre Dame bus tours—but ends up there. He says he won't need a fancy hotel room because he'll be out sightseeing and taking in night life. But when room service is too slow, he switches to a better hotel.

- **But Different**—Still, the tourist isn't quite what he was before World War II. Now he seems less scared, more assured in trying to get to places he really wants to see. This surface sophistication stems partly from the number of Americans overseas during the war.

Today's tourist approaches the trip more as a project to be done up brown than as a relaxed vacation. There's good reason for taking planes across and back—the 9-to-5 man only has a short vacation. But the plane trip is also a sign of speed and efficiency.

One of the changes, too, is more use of rented cars for getting around. This has tended to take the tourist off the main drag to out-of-the-way spots. The average American feels at home in a car, and recognizes that traveling this way, he can see more sights for the money. One indirect result is that off the main roads, away from big cities, the tourist has to make the big effort to speak foreign phrases to make out.

- **Microscope**—So big is the annual migration to Europe that now the U.S. tourist is coming more and more under the searching analysis of Madison Avenue-type surveys. The European Travel Commission, for one, recently completed a detailed survey of 4,000 tourists. And the Dept. of Commerce has stepped up its reporting.

Not all the findings are what you'd expect. Here are some highlights:

- Only a small proportion of Americans go abroad—despite the upswing in tourism. In 1929, 4% of the total population went abroad. Now it's about .6%—of a bigger population.

- Western Europe is not getting so large a share of U.S. tourist spending as it used to. In 1929, Europe took 44% of all tourist dollars spent abroad; now it gets 37%.

- In season, 41% of U.S. visitors to Europe are under 45 years of age. That could indicate that more Americans now make sizable incomes at an earlier age. Yet 42% of tourists in Europe have not taken—or completed—a college or university education.

- About 18% of tourists have incomes under \$5,000—a startling figure, even considering increased student travel. These tourists tend to spend proportionately more than higher-income tourists—some staying longer to "get the most out of the trip."

- New York and the Northeast contribute the most tourists, with the Middle West in second place. California and Texas—with many high-income families—contribute only 13% of tourists to Europe.

- The number of tourists born in Europe and returning for a visit with relatives is declining, but still high—33% of all tourists. Main countries this group goes to are West Germany, Britain, Ireland.

- Over-all, the most popular countries are France, Italy, Britain, Germany, Switzerland—in that order. Average stay—just under two months.

Altogether, this splurge of American tourists has been a boon to the 2,500 or so travel agencies in this country. (To see how the largest of all—American Express—makes money, turn to page 132.)

The 14 most frequently asked questions about Business Consultants

Q. What is a business consultant?

A. An outside specialist called in by management to help with a special project or unusual business problem.

Q. In what phases of business do consultants specialize?

A. Some specialize in one field—like insurance, appraisals, or marketing. But the larger consulting firms usually offer specialized help in all these, and many other areas.

Q. Which size firm can serve me best?

A. That depends on your problem. However, with the complex structure of modern business, many problems can't be readily classified. It often takes investigation into many facets of a company's operations to determine what the basic problem really is. An integrated consulting organization offering specialists in many fields is more likely to find solutions that are sound from every angle.

Q. How large or small an assignment will a consulting firm undertake?

A. That varies with each firm. Most of the larger ones take assignments of all sizes—assignments ranging in duration from a few days to several years.

Q. Any limitation on where they can serve me?

A. That varies, too. Some consulting firms, like Ebasco, have had worldwide experience.

Q. How can such outsiders know my business?

A. The well-established consultant has probably worked for many companies in your industry or related industries in the past. The once-in-a-lifetime situation in your company may well be one he's handled a dozen times before.

Q. Is it wise to engage a consultant who may have worked for my competitors?

A. Certainly. Just as wise as employing an executive, a salesman, or any other worker who's had previous experience in your industry.

Q. What happens if a consultant I engage works for one of my competitors in the future?

A. Consultants are professional men with professional ethics. They cannot and will not reveal information of a confidential nature.

Q. Do consultants offer standardized solutions?

A. No. They draw on past experience, but each new set of recommendations is tailor-made.

Q. How do they arrive at their recommendations?

A. In general, through four specific steps: (1) They get the facts about the problem or the project; (2) They analyze these facts; (3) A program of recommended action is submitted to management; (4) When the program meets management's approval, the consultants plan the details and assist in putting the program into operation.

Q. Are the services of business consultants expensive?

A. A consultant's value can't be measured in dollars and cents, but by the results achieved. The fact that consulting firms derive much of their business as repeat assignments from clients served in the past proves the consultant's worth.

Q. Wouldn't my company save money by putting the specialists it needs on its permanent payroll?

A. No, since most special problems and projects that call for a consultant are of relatively short duration. Nor would specialists be easy to find in today's tight manpower market.

Q. Can consulting costs be estimated in advance?

A. Yes. Consulting firms will submit estimates of charges for each specific assignment.

Q. What's the best way to select a consulting firm?

A. Check with the Association of Consulting Management Engineers for their listing of members, or your own trade association for qualified firms. Select two or three and discuss your requirements with them. Ask whom they have served before—in what capacity—and how often. Then choose the firm that seems best suited to meet your particular needs.



Whatever your business or industry, one of the firms that may be recommended to you is Ebasco. Our booklet, "The Inside Story of Outside Help" describes the many consulting services we offer. We will be pleased to send you a copy. Address Ebasco Services Incorporated, Dept. C., Two Rector Street, New York 6, New York.



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Travel Giant Makes

MOST AMERICAN tourists visiting Western Europe take in Paris. And in Paris they end up—at one time or another—at 11 Rue Scribe (pictures), local headquarters of the American Express Co. Here Americans cash traveler's checks, sign up for tours, pick up mail, get advice, meet friends. They do the same at American Express offices in London, Rome, and other cities.

This is the travel business on a department-store basis—at Rue Scribe almost every thing a tourist needs is concentrated in one building. And this assemblyline approach is what has helped make American Express the world's largest travel agency. By 1960—if the tourist boom continues—the company will probably be running 20% to 25% ahead of this year's expected turnover of over \$4-billion.

• **Travel and Banking**—But though to many U.S. tourists, "American Express" means travel, in sheer business terms American Express is a good deal more than just a travel agency. Interestingly one of its profit mainstays



HOME-AWAY-FROM-HOME for American tourists in Europe is 11 Rue Scribe—main Paris



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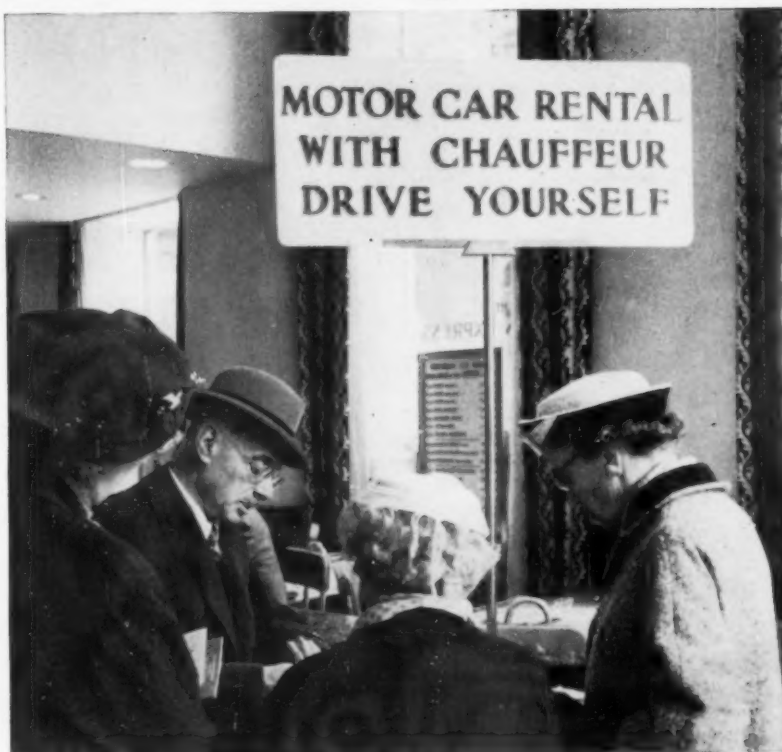
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CAR RENTALS for independent trips around France and the Continent are big business.



MAIL SERVICE is provided free of charge, with over 750,000 letters handled annually for U. S. tourists in Europe.

"... the reason why American Express can get a larger slice of the commission is its long-standing position in the check field ..."

STORY starts on p. 132

is its financial operations—selling "traveler's cheques" (American Express sticks to the old spelling), arranging letters of credit, investing the money that passes through its hands. Overseas the company carries on sizable banking operations. The 1956 net profit was \$6.3-million.

Traveler's checks are its main money-earner. Money orders and commissions from the steamship lines, airlines, and railroads come in a poor second and third. Yet the more travel business it gets, the brighter are American Express' prospects: The more people travel, the more traveler's checks are sold, the more money American Express has to invest.

- **Lure**—To boost travel in line with this aim, American Express has come up with all sorts of schemes. It has long promoted "Foreign Independent Tours" where the customer gets a tailor-made tour, complete with prepaid coupons he uses throughout the trip. It has helped develop pay-later, installment travel. It has given the transportation and hotel industries some imaginative suggestions on how to take care of more travelers—to the point of even considering building its own hotels.

- **Upgrading**—There's no denying that rising U.S. incomes are helping give American Express more business. With more money than ever in pocket, the average American is spending more money per trip. Six years ago, the \$10 traveler's check was the most popular. Now the top seller is the \$20 check. Since 1945, the average amount of checks customers buy at one time has risen 51% to \$286. And as a sign of the times, American Express is seriously considering issuing checks higher than \$100—possibly a \$200 or \$500 denomination.

The increase in business travel has also been a boon. It has helped even out travel around the year. To encourage this, American Express is now making its first experiment in letting large, blue-chip companies issue traveler's checks directly to employees.

The company has built up a vast organization to meet the problems of tourist growth. Since the war, it has expanded its offices from 50 to 391. It has built its staff from around 1,000 employees to nearly 9,000.

- **Helmsman**—Pushing American Express ahead is Ralph T. Reed—president since 1944. His main problems at the moment are holding down costs and finding qualified people to staff his organization.

But his never-ending headache is how to keep tabs on all facets of the company. Besides travel and checks, he watches over American Express subsidiaries such as Wells Fargo & Co. and American Express Field Warehousing Corp. But his main concern is the vast retail chain of offices where most of the company's income comes from.

His technique is to give his foreign vice-presidents and general managers leeway in doing business, but to scan thoroughly the detailed monthly reports from overseas. Working as much as an 18-hour day, he personally reads through stacks of reports—and leaves few details for his lieutenants.

Beyond that, the 67-year-old Reed is an indefatigable field inspector. Two weeks ago, he returned from an exhausting two months' spin around Europe. During stopovers in over 20 cities, he checked local books, sized up leases and locations of offices, conferred with top government officials (whom he usually knows on a personal basis), talked expansion plans with hotel managers, ran a meeting of his European managers.

As a believer in "trade, not aid," Reed has also crusaded in behalf of the whole tourist industry.

- **Friendly Rival**—American Express' only competitor of any consequence is the British travel company, Thomas Cook & Son Ltd—partly owned by the British government. But the two companies rarely cross swords; in fact, they frequently handle such big conventions as this month's American Bar Assn. meeting in London on a 50-50 basis.

The reason for this friendly relationship is mostly historical. Cook began in 1841 as a travel tour company. American Express started up several years later primarily as a freight-and-money express company (its first three presidents were from the Wells and Fargo families). Cook gets about 85% of its \$112-million-a-year business from package tours—mostly Britishers visiting the Continent.

By contrast, American Express only got into the tourist business in a big way in 1915, when it opened a travel department. And even this was an indirect entry—its aim was to give service to users of its traveler's checks—which the company invented in 1891 after Pres. James Fargo found he couldn't cash letters of credit easily in out-of-the-way places.

- **First in Checks**—American Express' competition today is in this field—

checks. The Bank of America issues around \$500-million worth yearly. First National City Bank of New York sells about \$300-million. Some people in the trade say that American Express sells around \$1-billion worth annually. American Express itself, while not giving out any figure, says it sells more than that, and claims it has about two-thirds of the traveler's check market, in dollar volume.

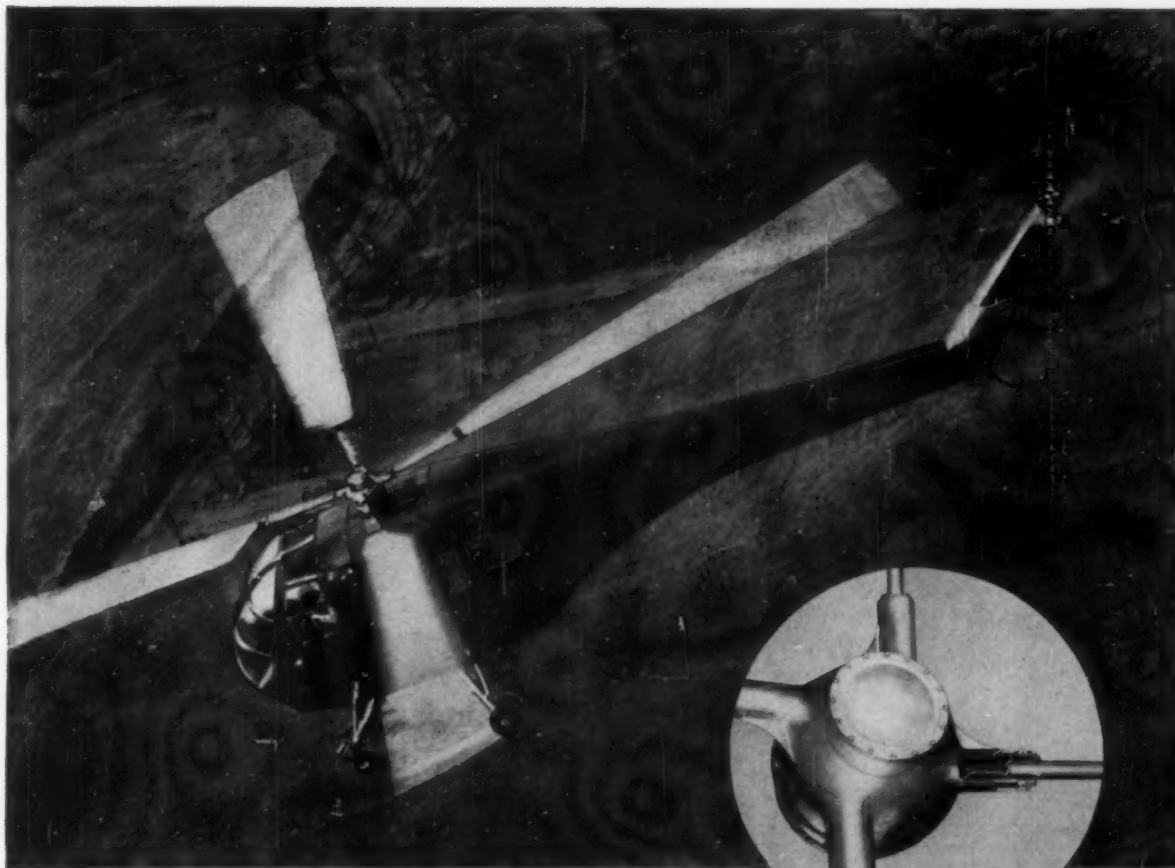
But this is only part of the story of how American Express dominates the check field. American Express and all of its competitors—except for Cook—charge \$1 per \$100 worth of checks. The banks, express offices, Western Union, and other outlets retailing these checks remit 10¢ of the \$1 commission to the issuer. Bank of America, for one, says at this low rate the checks serve more as advertising than as "an income item." Yet American Express asks—and gets—33¢ for each \$1 commission. This is enough to provide some profit from check sales.

The reason why American Express can get a larger slice of the commission is its long-standing position in the check field. Its checks probably have the widest acceptability—in hotels, restaurants, ticket offices, and stores—around the world. It claims to have the quickest, most readily accessible system for making refunds to check-users who may lose their checks or check cashers who may get stuck with counterfeits. It also plows back some of the 33¢ remittance into widespread advertising that helps its 28,000 outlets sell the checks.

- **Plum**—What makes the whole check business worthwhile for American Express is the huge amount of money that this business makes available for investment. The company puts the money paid in by check purchasers to work—just as a bank puts deposits to work.

At the end of 1956, for instance, it held investments of \$503-million—the bulk in state and municipal bonds and U.S. government securities. The income American Express gets from these investments is reportedly equal—or better than—its direct income from check sales.

- **Hard-Earned Bucks**—Viewed from the outside, the company seems to be in a business that requires more work per dollar earned than almost any other. With about \$657-million in customers' deposits, traveler's checks, and letters of credit outstanding—the equivalent of a fair-sized bank's deposits—Reed has to act as a conservative banker. Yet with such a farflung organization and so many sides to the business, his job appears infinitely more complicated than the ordinary bank president's job. Yet there's no doubt Reed likes the hot seat. **END**



SLEEVE BEARING of Du Pont ZYTEL used in rotor hub of helicopter eliminates field maintenance of blade-retention system. (Made by Doman Helicopters, Inc., Danbury, Conn.)

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cation has solved all spar-tube galling problems. By eliminating galling problems in the Doman Rotor, there is no longer a need for field maintenance of the blade-retention system."

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sion resistance. Even thin-walled parts of ZYTEL are found to be very strong. Since ZYTEL is a resilient material, this property provides a tendency to damp harmful vibrations.

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In Business Abroad

• • •

Direct U.S. Private Investment In Latin America Tops \$7-Billion

Direct U.S. private investment in Latin America has passed the \$7-billion mark, according to a study released this week by the Inter-American Council of Commerce & Production. That's more than double the \$3-billion total of U.S. investment in the area in 1946. And it's more than twice the total of all postwar international credits and loans extended by the U.S. government to Latin American governments. The council study is based on a recent Commerce Dept. analysis of U.S. investment in Latin America.

The study reports that latest indications point to a continuation of the record rate of investment. The council says "countless opportunities for productive investment are still to be found throughout Latin America and await only the encouragement of friendly governments and the initiative of alert private business. . . ."

• • •

West Germans, Russians to Talk About Trade, War Prisoners

A 25-man West German delegation was scheduled to leave Bonn this week for Moscow to lay the groundwork for Soviet-German trade negotiations. The talks are expected to get under way in Moscow July 23. Green light was given when the Russians agreed to allow discussions about the repatriation of German World War II prisoners held by Moscow. Bonn claims there are still 80,000 Germans in Soviet custody. But Moscow has made a counterclaim, charging that there are 19,000 Soviet citizens living in West Germany. The Germans admit there are 13,000 former Russian citizens in West Germany—but there by their own choice.

• • •

India Gets World Bank Loan To Expand Its Railroad System

India's vast government-owned railway system—the world's fourth largest—has received a heavy chunk of refinancing from the World Bank. The bank has granted a four-part loan totaling \$90-million to New Delhi for expansion and modernization. The Indian planners hope to equip their rail transport over the next five years to handle almost half again as much freight as it does currently.

The loan was made in four parts because it has been extended in several currencies. It includes \$24-million in Japanese yen, \$19-million in sterling, \$11.2-million in Italian lira, and \$35.7-million in other European cur-

rencies and dollars. These loans represent, more or less, the expenditures India will have to make in these countries for locomotives, rolling stock, and other equipment over the next year. The over-all five-year bill for capital equipment for the railways to be manufactured outside India will be an estimated \$900-million.

• • •

Filipino Mission Visits Tokyo To Discuss Commercial Loans

A Filipino mission is now in Tokyo to open talks implementing the loan section of the Japanese-Philippines war reparations agreement. Altogether, Tokyo has agreed to pay Manila \$20-million in cash, \$530-million in goods and services, and to make \$250-million in commercial loans for industrial and agricultural development. The goods and services payments already have begun.

The Filipino mission is composed of five bankers headed by Alfonso Calalang, president of the Bankers Assn. of the Philippines and of the Security Bank & Trust Co., Manila.

• • •

Business Abroad Briefs

Mexico's growing sulphur industry exported a record 96,500 metric tons in June, with Pan American Sulphur Co. accounting for 70,000 tons. . . . Cananea Consolidated Copper Co., subsidiary of Anaconda, is seeking special tax concessions from the Mexican government to help finance a 10-year, \$20-million expansion program.

Another fancy U.S. embassy is in the works—this time in Athens. Construction of the \$1-million structure, designed by famed architect Walter Gropius, will start this fall. It probably will open sometime in 1959.

Boom in Australia: Subsidiaries of U.S. companies may boost exports under new trade agreements the Australian government is negotiating with Western Germany and four Asian countries. . . . McGraw Edison has bought stock in Tyree Industries, Ltd. . . . Godfrey L. Cabot, Inc., and the United Carbon Co. jointly will build a \$4.5-million carbon black plant near Melbourne.

To speed Sahara oil development, the French government plans to float a bond issue this fall. Altogether, about \$1-billion will be needed over the next three years to put Sahara oil production on a full operating basis.

Mergers: In Britain, John Laing & Son, Ltd., and H. K. Ferguson Co. of Great Britain, Ltd., a subsidiary of H. K. Ferguson, have formed Laing-Ferguson, Ltd. to handle big construction jobs. . . . Gas Purification & Chemical Co., British electronics company, and Amphenol Electronics of Chicago have set up a joint company, Amphenol (Great Britain), to make a wide range of electronic components.

The Bank of America, which has branches in 17 countries, has opened a new one in Guatemala City.



Newest boom market: leisure time

*Shorter work weeks, longer vacations
create multi-billion-dollar industry*

Americans now spend more hours on leisure-time activities than anything else — except possibly sleep. Thanks to the efficiency of modern industry, vacations are longer and work weeks shorter. Result: the average man now enjoys more free time than ever before.

Most families use these spare hours creatively — to improve house and grounds, to learn to paint, write, and enjoy music, and to enrich life in general. Today, for example, "do-it-yourselfers" are making realities instead of dreams of backyard barbecues, amateur darkrooms, and family playrooms.

To fill their leisure hours, people are spending billions of dollars a year and greatly broadening the markets of many industries. Boatbuilders, for one, number clerks and mechanics, as well

as millionaires, among the operators of almost six million pleasure craft. Travel, leisure-time wear, power and garden tools, and sporting equipment are among others which have experienced comparable booms.

Many of these industries find the extra working capital they need at First National City. Here they get credit for purchasing, processing, and shipping raw materials and for distribution of products. The Bank also finances carriers — rail, air, ship, and bus.

Millions who travel each year carry

safe, convenient First National City Travelers Checks. These are available at banks throughout the world and are spendable anywhere.

In the New York City area, boat loans, auto loans, and special Travel-plan financing help folks enjoy their leisure time. Overseas, the Bank's 70 Branches, Offices, and Affiliates provide a welcome banking link with the United States for those who travel abroad.

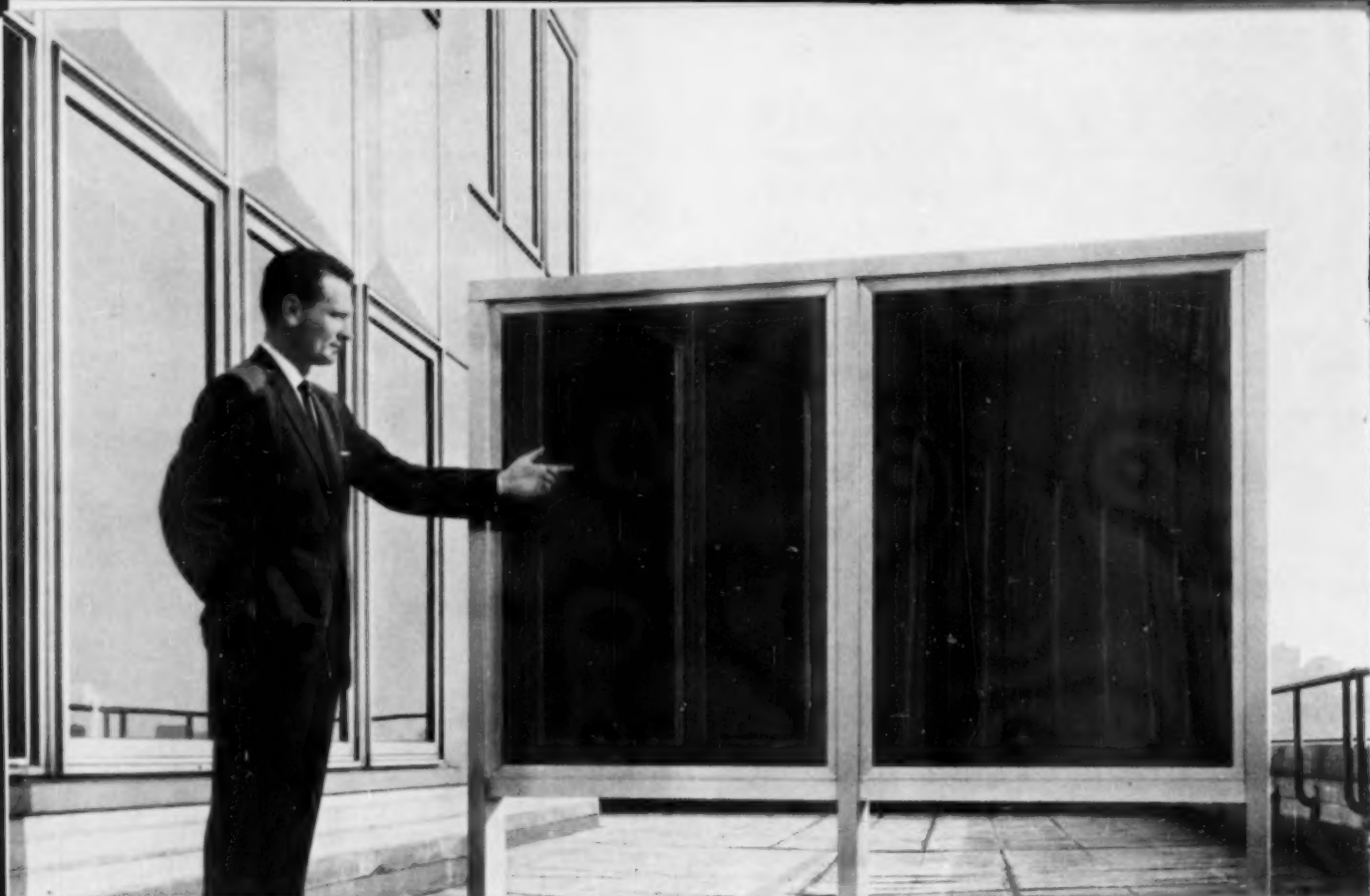
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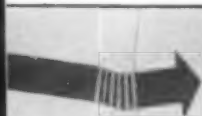


HERE'S THE DIFFERENCE: The glass in these two window frames is backed with black composition board to simulate the mirror effect of windows in a building. In the window at the left, glazed with *Parallel-O-Plate*, the reflections are mirror-perfect. In the other, glazed with sheet (or heavy window) glass, note the

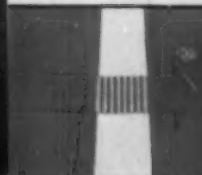
distorted reflections of all straight lines. This demonstration was set up outside the 26-story air-conditioned office building at 99 Park Avenue, New York, built by Tishman Realty & Construction Co., Inc. For beauty and solar heat reduction, architects Emery Roth & Sons used L-O-F Heat Absorbing Plate Glass in this building.

The reflections in your windows will reflect on you

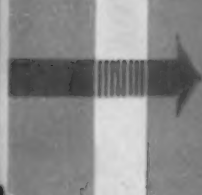
WHAT CAUSES DISTORTION?



WINDOW GLASS: Its surfaces are fire-polished . . . not ground for uniformity of thickness as is plate glass. As a result, the surfaces are wavy and there is distortion of vision and of the reflections in the glass.



ORDINARY PLATE GLASS: Its surfaces are ground and polished one side at a time. While its thickness is more uniform than that of window glass, the thickness does vary and some distortion results.



PARALLEL-O-PLATE: Its surfaces are twin-ground—both sides ground at the same time—then polished. This produces more perfect parallelism than any other method of making plate glass. This uniform thickness assures greatest freedom from distortion.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

JULY 20, 1957



Nikita Khrushchev isn't losing any time in trying to consolidate his new power. You can see that from the barnstorming tour he has just made in Czechoslovakia.

But it will be several months at least before you get the real impact of the Khrushchev-Zhukov regime on (1) Moscow's relations with the other Communist countries; (2) economic developments within the USSR; and (3) Soviet relations with the West.

Khrushchev apparently achieved his immediate goals in Czechoslovakia. The Czech Communist leaders assured him of their personal support. At the same time, Khrushchev outlined a new system for coordinating Soviet-satellite economic relations—one that leaves less room for Soviet exploitation of the satellites.

Dealing with Czechoslovakia isn't the same thing as dealing with Red China. A visit from Mao Tse-tung is one of the next things on Khrushchev's calendar. And Mao will press for a full examination of Soviet industrial aid to Peiping.

With less swag available from Eastern Europe, Khrushchev can hardly promise Mao any more economic help. Yet if he doesn't, the Chinese are likely to start making more trade deals on their own in both Eastern Europe and Western Europe.

At home, Khrushchev still faces the problem of making his economic reorganization plan work (BW—Jul.13'57,p25). He'll be lucky if the rate of Soviet industrial growth doesn't drop badly this year. Reports reaching Eastern Europe suggest that the new system will be hobbled as much as the old by a bloated bureaucracy and by industrial shortages.

From preliminary reports, it looks as if this year's Soviet crop isn't too good, either. One Western estimate puts the grain harvest at 20-million tons under last year's bumper crop. That wouldn't be a calamity. But it would squeeze fodder supplies that Khrushchev needs to boost output of meat and dairy products.

Soviet policy on arms control will give the clue to the Khrushchev-Zhukov position on East-West relations. This will be far more important than any shift in personnel at the Soviet foreign ministry. Anastas Mikoyan is reported ready to replace Andrei Gromyko.

At midweek, the outlook wasn't bright for agreement at the London arms control talks. There were hints of a recess until late fall. That could mean that Khrushchev and Zhukov are shooting for another summit conference—to be held before the London talks resume.

The U. S. State Dept. is reluctantly clearing the way to let U. S. newsmen into China—while the French foreign office is moving cautiously toward recognition of the Peiping government.

Ex-Premier Edgar Faure, a politician with close business connections, made a trip to Red China recently. He found Peiping ready to give orders to French heavy industry—after recognition. Now a French trade mission is planning to visit Red China in September, when two missions from Peiping are slated to be in France. Some Paris observers expect recognition first—to smooth the way for French exports.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JULY 20, 1957

But don't ignore the possibility that the French are only maneuvering. For example, they might be willing to postpone recognition of Red China if the State Dept. promises to stick with its hands-off policy in Algeria—and ignore Congressional talk of giving U. S. backing to the rebels.

A real inflation scare has blown up in Britain. The new alarm isn't due to any sudden weakening of Britain's over-all economic position. There have been some favorable signs recently—a fall in the price of imported raw materials and a rise in productivity.

But coal prices have just gone up and the government has been talking of raising both postal and telephone charges. More important, sterling has weakened badly. At bottom, lies the fear in Britain and abroad that a new round of inflation is about to begin, fueled mainly by the big wage increases of 1956 and early 1957. The inflation threat may prove the toughest challenge the Macmillan government has yet had to meet.

In West Germany, the Adenauer government is heading into the September elections full of confidence.

On the economic side, its record is something any government could envy. It has fostered rapid industrial growth, with scarcely any inflation. German exports have boomed, giving the country a strong currency and huge exchange reserves. Bonn is now cutting its tariffs on industrial goods once more, and getting ready to give France a sizable credit.

Pres. Eisenhower's special Cabinet committee on oil imports (BW—Jul.6'57,p80) is about ready to report. Informed Washington sources say the committee will call present oil imports—running at about 19% of domestic production—excessive. But it won't recommend trimming them drastically.

Instead it will offer a compromise proposal—to replace the old 1954 formula setting imports at 10.3% of domestic production with a new ratio of 15%.

The plan won't satisfy Texas and other oil states. Texas now is losing millions of dollars in oil taxes, with wells on a 13-day per month schedule.

There will be no fixed agenda when Secy. of State Dulles meets Canadian Prime Minister Diefenbaker in Ottawa late in July. Dulles and Diefenbaker want a chance to discuss the whole gamut of U. S.-Canadian relations on an informal basis.

The Canadians have a lot of beefs. Western Canada is sore about the U. S. surplus commodity disposal program, under which U. S. wheat is sold abroad for local currencies. Diefenbaker has repeatedly said he's worried about the huge deficit Canada runs in its merchandise trade with the U. S., which is offset only by heavy U. S. private investment in Canadian industry. And that investment has raised the issue of U. S. control of Canadian industry—an issue that Diefenbaker's Conservative party whipped up in Canadian politics (BW—Jan.19'57,p140). Finally, Ottawa is upset over signs of increasing American protectionism against Canadian exports.

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LABOR

Cement Strike: Concerted Attack

● This year more than ever before United Cement, Lime & Gypsum Workers has coordinated its bargaining.

● Producers view this action as an attempt by the union to win industrywide wage "pattern" settlements.

● Some companies—mostly in the Midwest and West—have settled. Eastern firms are balking at union demands.

● So far, effects of the strike are spotty. Right now, the only real pinch appears to be in the East.

The country's first widespread cement strike cut sharply into production this week. Despite scattered settlements, nearly half of the industry's 170 plants were idle, with an estimated 16,000 workers off the job. Shortages of cement and concrete supplies developed on a spot-to-spot basis and caused construction delays and layoffs. However, there is no hard pinch yet—except in Eastern states.

• **No Emergency**—The strike started on May 1 in two small plants in the Seattle area. It has spread slowly since then, plant by plant, with most shutdowns starting between June 28 and July 2. The bulk of the industry has never accepted companywide bargaining with the union, the United Cement, Lime & Gypsum Workers. Negotiations are at the plant level with local unions. These unions are aided by the international, which can authorize a walkout only when local negotiations collapse.

This year, more than ever before, the union has coordinated its local bargaining strategy. For the first time, officers say, it has "set the strike situation up on a national basis," shutting down plants as negotiations deadlock.

Federal officials have been watching the strike closely for possible "national emergency" implications in the new strategy. They see none, so far. They are "concerned, of course," but, according to Joseph F. Finnegan, director of the Federal Mediation & Conciliation Service, they expect the dispute to "resolve itself within a reasonable time."

This viewpoint is based on a belief that the cement dispute "has the earmarks of industry strategy" aimed at a price increase. Most suppliers had accumulated large inventories before the walkout, both as a protection against a possible stoppage and in anticipation of a price boost. Until the stockpiles are reduced—and demand builds up for cement even at a higher price—com-

panies have little incentive for strike-ending compromises, some in government and industry offices say.

Under the circumstances, White House labor advisers see "nothing in the situation at this time" to warrant invoking the Taft-Hartley.

I. The Bargaining

The cement union has caused strike problems before—two years ago in the East—but none so serious as those this year. In the industry, the tougher policy is interpreted as a trial run for national pressure bargaining on "pattern" wage terms.

To this extent, the union admits it: Officers of the Cement Workers in Chicago say flatly that the strike this year is intended to prove to cement companies that "we're a union." To this end, they say: "We're coordinating our bargaining activity. We're supporting each other. This time, the companies can't play one local against another local . . . for a settlement, the least that they can get, and call that a pattern."

Major companies deny the union charges of management collusion.

• **Regional Differences**—Strong, regional differences show up in the industry.

Western employers, in the past, have frequently gone beyond what is considered the pattern for cement plant contracts. The Eastern bloc—comprising some of the industry's most powerful companies—has been the toughest for the union. Midwestern producers have been somewhere in between.

Agreements worked out so far this year mostly have clustered in the Midwest, with some in the West. They follow "pattern" terms that give workers increases in wages and fringes estimated at about 16¢ an hour, on the average.

• **General Pattern**—The Marquette

Cement Co., with 2,000 employees in seven plants, settled first, for pay rises of from 11¢ to 20¢ an hour (average: 13.6¢) and other increases estimated to cost 2.4¢ an hour (BW—Jul. 6 '57, p54). The raises were retroactive to May 1. Other companies have followed Marquette's lead. One of the latest is the Ideal Cement Co., in Denver, which signed with the union last week-end on roughly similar terms for 2,800 employees in 11 of its 14 plants.

Union negotiators expect the general pattern to be extended—with some alterations—through the central part of the country as negotiating teams "get around to the various plants."

There are problems ahead in other areas. In the Northwest, where the union says it has had "the best contracts in the industry," efforts to win improvements snagged at two Lone Star Cement Co. plants in the Seattle area—until earlier this year owned and operated by the Superior Portland Cement Co. Lone Star, which has its headquarters in New York, made counter-demands, and the company's employees walked out. Other major producers and the union report contracts talks "going nicely."

• **Situation in East**—The Eastern companies, which include Alpha, Lone Star, Universal Atlas, Lehigh, and other powerhouses of the industry, are considered by the union to be "the heart of the cement industry . . . the brains behind it [and] a tremendous influence." As of midweek, the strike against their plants appeared to be the most tightly knotted.

The companies have offered a wage increase comparable to that in Midwestern settlements—based on average 13.6¢ raises—but have balked at retroactivity and noneconomic parts of the union-pushed Marquette pattern.

• **Key Issue**—The key issue is a union demand, accepted by Marquette and other companies, for a contract provision barring the subcontracting of maintenance work and other work normally handled by plant workers. The union wants each company's own employees to handle this work as long as manpower and equipment are available.

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nance and janitor work. We are a sort of industrial union, and our charter gives us the right to do such work," a union spokesman said in Chicago.

Cement Workers members have frequently done the work in the past. The specific clause in the contract is being sought because, the spokesman said, arbitrators "have been holding that unless there is a specific provision in the contract, the company has the right to contract out the work. The union is only asking for a guarantee of work for its members . . . We want to limit, not take away, the company's right to subcontract."

Eastern producers say the clause would hamper them in the efficient scheduling of work, and could run up labor costs. They contend that the right to subcontract must be a management prerogative, and at midweek insisted that they would not compromise on the issue.

II. Strike Effects

The impact of the cement industry tie-up differed from place to place. In the New York City-Long Island area, shortages cut construction work by an estimated 30% this midweek and led to the furloughing of some 20,000 of the area's 150,000 building tradesmen. Farther afield, the growing shortage of cement curtailed work on 83 of 304 highway projects under way in New York State.

However BUSINESS WEEK correspondents elsewhere reported generally less substantial shortages. Because of the slow spread of the strike, many contractors were able to build up emergency stockpiles of cement from the producers' high pre-strike inventories. Others had time to develop alternate sources of supplies, from Puerto Rican and Canadian plants or, as settlements spread, from domestic producers continuing to operate. But, for many, the cement is now costing premium rates as a result of added freight or, some say, "gray market" prices.

• **Adequate Supplies**—In Chicago, contractors reported little or no pinch from the walkout. With Marquette signed up and Universal Cement under contract with another union, contractors have been able to get a fairly adequate supply of cement.

Much the same situation exists in Pittsburgh, where cement manufacturers are under contract with the United Steelworkers, and in Detroit, Milwaukee, Omaha, Denver, Cleveland, and Columbus, Ohio. In these areas, cement is largely obtained from the Midwestern producers who have settled or who are negotiating currently on contract terms, and aren't struck. Some cities reported a surplus.

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South are down, and have been for up to six weeks. However, in Atlanta and in Birmingham construction companies report they stocked up in anticipation of a strike and haven't been hurt—"as yet," they said. They do not expect any delay in pouring schedules.

• **Few Problems**—There's no problem in Nashville, where the Hermitage Portland Cement Co., a Marquette subsidiary, is operating—and able to double production, if necessary, to meet demands. In Little Rock, an Ideal Cement plant is meeting Arkansas orders on schedule, with no shortages likely. In mid-North Carolina, Greensboro State Highway Commission officials and local contractors report "no delays on anything," with major suppliers "safe" for three to four weeks, at least.

In Florida, where two major plants are down, work at the government's missile base at Cocoa has been delayed, and shortages are hurting in other areas—although not yet seriously. Florida contractors import 35% to 40% of their cement from Puerto Rico, are planning to step up purchases there if Bunnell and Tampa plants do not reopen within a week.

The cement strike spread into Texas last weekend. Some contractors in Houston and other cities report that there is "plenty of cement available now—and if a domestic shortage develops, foreign supplies are available here." However, Dallas, Austin, and other cities reported construction and road-building delays and layoffs.

Northern California contractors report "no interruption of cement production or construction." Southern California builders are beset by strikes of building tradesmen, and cement pouring is almost at a standstill—but there's no shortage of cement. And in the Pacific Northwest, only Lone Star's operations around Seattle are down: Adequate supplies of cement are available for the market west of the Rockies.

• **Where It Hurts**—The pinch that hurts is in the East. Philadelphia reports state highway work stopped, street projects shut down, and bridge, school, and other new construction curtailed. Two of the city's biggest makers of ready-mix concrete shut down last weekend when they ran out of cement.

In New Jersey, construction delays and layoffs are affecting highway and building projects. Maryland reports public works—such as schools, roads, bridges, and tunnels—and private construction slowing down, with a "real lack of cement developing." Connecticut suppliers began importing Canadian cement this week to help meet growing shortages—but at a sharply increased cost. Maine and other New England states are also importing cement from Dominion producers, largely from Quebec. **END**



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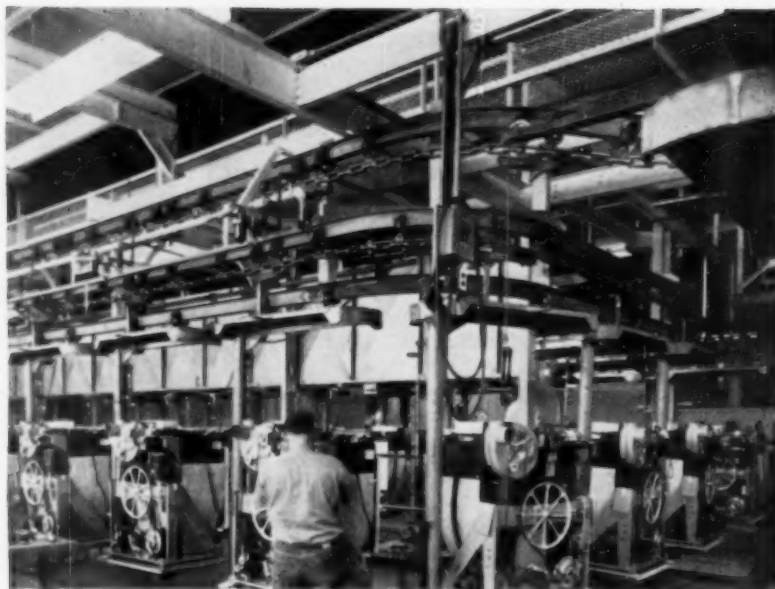
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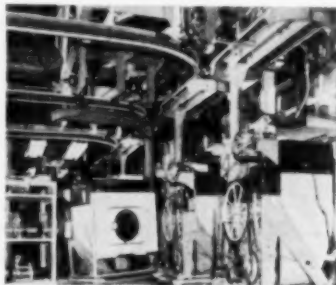
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Ward Denies . . .

. . . charges that it made a deal with the Teamsters union involving proxy support for a union contract.

Last May, the McClellan committee, probing into the unsavory affairs of Dave Beck, thought it had a name as big in business as the Teamsters are in labor as an example of disreputable management practice. That name was Montgomery Ward & Co.

The giant mail order company, noted for its battles with organized labor, had negotiated a maintenance-of-membership contract with the Teamsters in 1955 in an air of amity and without a strike. The McClellan committee heard that behind that agreement was still another agreement.

• **Deal?**—In 1955, the Sewell Avery forces among the company's stockholders were locked in a bitter struggle with a group headed by Louis Wolfson intent on taking control. Proxies would determine the outcome. Meanwhile, the Teamsters were conducting another in a long series of what had always been unsuccessful campaigns to organize some Ward warehouses.

Then it was reported that the Teamsters were buying Ward stock heavily. Next, Beck and Teamsters Vice-Pres. James Hoffa announced that over a \$1-million block of stock the union controlled would be voted for the Avery slate. Wolfson said that did it; it turned the tide against him, and he resigned himself to minority representation on Ward's board. Shortly afterward, when Ward and the Teamsters made their agreement, Wolfson charged that the Teamsters' proxies were a quid pro quo for the contract they got from the company.

• **Employee "Pawns"**—This all came up again last May when Alfons Landa, a Washington lawyer, testified under oath before the McClellan committee that he was the "volunteer" who, in effect, initiated some deal. The committee was shocked. McClellan declared that the employees of Montgomery Ward "were just pawns in the hands of the two in the trade."

Since his victory over Wolfson, Avery has been retired and Ward's president and board chairman is John A. Barr. Barr immediately denied the Landa story categorically, and this week he appeared before the McClellan committee to do it for the record.

• **Barr's Testimony**—In his testimony, Barr vigorously denied that Montgomery Ward and the Teamsters ever "entered into an improper agreement." Moreover, he said, the union-influenced

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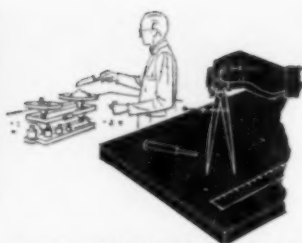
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voting of stock proxies did not have "a scintilla of motivating influence."

The Teamsters stock, bought with welfare funds, amounted to 12,500 shares and represented only one-fifth of 1% of the total outstanding stock.

Barr told the committee that, under the circumstances, the Teamsters stock purchase and subsequent support of Avery during the union organizing drive were "merely and wholly incidental." Sen. John Kennedy said that the events nevertheless had a "psychological impact . . . of substantial assistance." But Barr insisted that they were "inconsequential, one way or another."

• **Cross Questioning**—Members of the committee questioned Barr about the success of the Teamsters organizing drive in 1955 after so many years of failure, and its success in negotiating a union security clause in its contract. Barr explained that the union had won a National Labor Relations Board election for warehouse employees for the first time since it began its periodic attempts to organize Ward employees in the late 1930s. Shortly afterward, it threatened a strike.

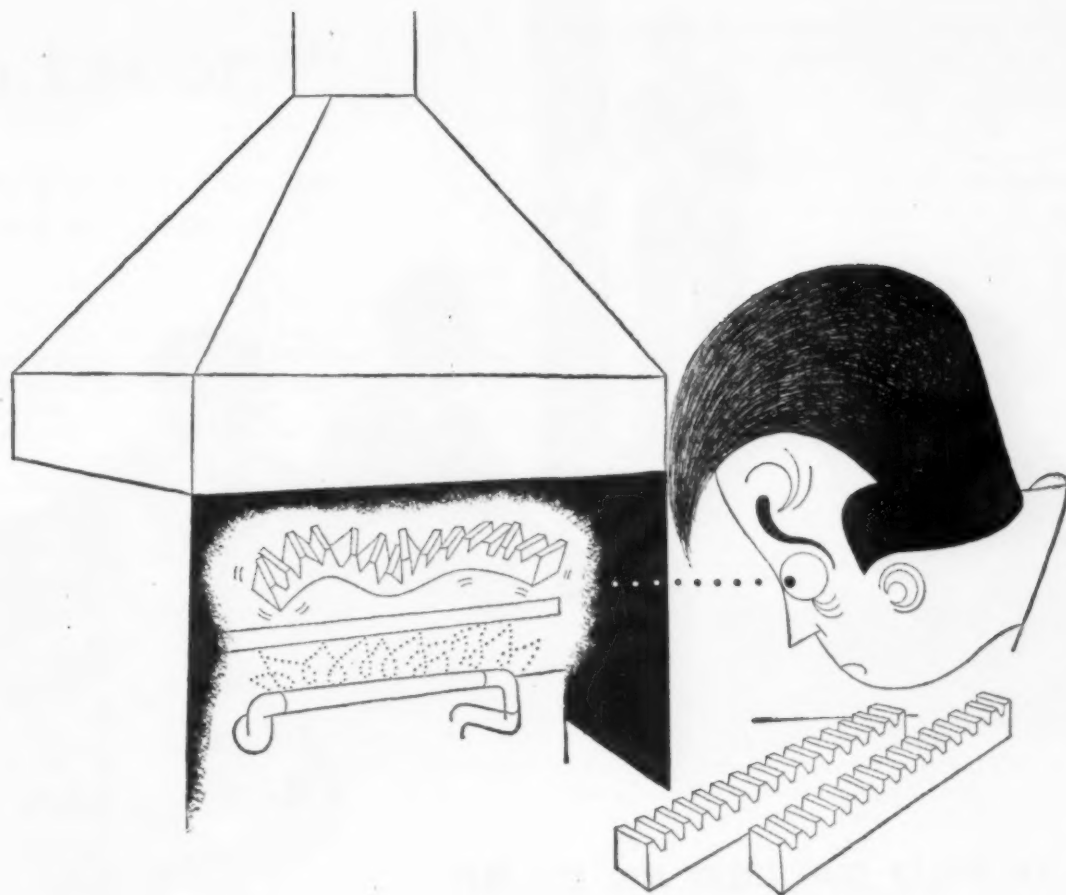
So, Barr said, in March, 1955, he advised the company to compromise with the union and proposed a maintenance-of-membership clause. A contract was then negotiated and signed on Mar. 31, three weeks before the proxy battle ended in Avery's favor.

Barr also said that he gave specific orders that the Teamsters were not to be solicited in Avery's behalf because such efforts might be misconstrued. He agreed that if a deal had been made—proxy support for a union contract—it would "indeed be iniquitous." But he said that inferences of such a deal are "completely untrue."

After Barr had read his prepared statement and answered questions that were rarely hostile, McClellan sat silent. He neither repeated his charges nor did he retract them. Afterward, McClellan said he has no further plans to go into the possible conflict in the Landa and Barr testimony was not announced. The guessing in Washington is that the committee will now let the issue die.

• **Epilogue**—Barr's appearance was the epilogue of the committee's probing of Beck's financial deals. Afterward, the committee turned to new union racketeering charges involving the former AFL United Textile Workers.

Meanwhile, the committee for the first time outlined the scope of its hearings. It listed 11 categories for its probing: misuse of union funds; racketeer control of unions; secondary boycotts; bribery and extortion; organizational picketing; violence; "paper" locals; political activities; labor-management collusion; improper activities by management to prevent organizing; and union undemocratic procedures. **END**



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In Labor

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Licensing of Union Organizers Is Ruled Unconstitutional

A city ordinance requiring union organizers to register and obtain licenses is illegal, a federal court in Kentucky ruled last week. The court held that a Russellville (Ky.) curb on organizing and other union activities is "invalid and contrary to the Constitution and laws" of the federal government.

Russellville is one of five cities in Kentucky that adopted local union licensing laws. The ordinance was passed last December. At the time, the United Steelworkers was organizing at the Rockwell Mfg. Co.'s valve plant in Russellville.

A similar Baxley, Ga., licensing ordinance is before the U.S. Supreme Court (BW-Jan.26'57,p102). Meanwhile, county "right-to-work" laws in California are headed for federal court tests (BW-Jun.22'57,p149).

• • •

Retirement Plan of Rep. McConnell Is Lamented by Administration

The Administration is unhappy about Rep. Samuel McConnell's decision to retire from the House this fall. The Pennsylvania Republican is ranking minority member of the House Labor Committee and would have been its chairman if the Republicans took control of the House. Although independent in his views and pro-labor in his record, he is basically an "Eisenhower Republican."

Unhappiness over his retirement is sharpened by the fact that, when he leaves, Rep. Ralph Gwinn (R-N.Y.) moves up to be top minority member of the committee. Gwinn has been classified as "100 miles to the right and 100 years behind" the Eisenhower policies.

• • •

Ohio Bureau Rules Against Alternate SUBenefit Plans

Supplementary unemployment benefits plans in Ohio are left in an uncertain state because of a decision by the Ohio Bureau of Unemployment Compensation last week. Its administrator, James R. Tichenor, barred the integration of state UC payments with two alternative SUB plans, involving periodic or lump-sum payments.

In May, 1956, Tichenor announced that Ohio law requires the deduction of any SUB payments from regular state unemployment compensation in the same weeks. Unions and employers devised substitute plans. Referring to these "so-called 'alternate' contracts," Tichenor ruled last week that SUBenefits paid under them "constitute income that must be deducted from unemployment benefits paid under Ohio law."

The alternative plans cover about a half-million workers in auto, rubber, steel, and electrical manufacturing industries in Ohio. They do not include the income-security plans in the glass industry, in which employers set up individual accounts in which employees have a vested interest and on which they can draw when unemployed.

The provisional approval of the alternative plans was intended to get "appealable claims" that would "provide an avenue for placing this issue before the [BUC] board of review and then the Ohio courts," according to Tichenor. Two test cases are probable. One involves a \$40 "periodic" payment to a Dayton worker who collected state UC for several weeks, and then collected that amount from his SUB fund. The other involves a \$140 lump-sum payment to a Cincinnati worker from SUB reserves after he left the state UC roll.

The Ohio CIO protested the latest Tichenor ruling and blamed Gov. C. William O'Neill. The organization said it would fight the ban in court, joined, it added, by "many" employers with SUB contracts.

• • •

Amalgamated Meat Cutters Spurns Merger Now, Eyes Poultry Industry

The Amalgamated Meat Cutters & Butcher Workmen is in no hurry to resume merger negotiations with the United Packinghouse Workers. Instead, it plans intensive organizing, particularly in the poultry industry, in which only about 35,000 of more than 150,000 workers are now unionized.

The Packinghouse Workers recently asked the Meat Cutters to resume merger talks—broken off nine months ago in a dispute over the interpretation of a unity agreement. The proposal was tabled at a between-conventions conference of the Meat Cutters last week.

• • •

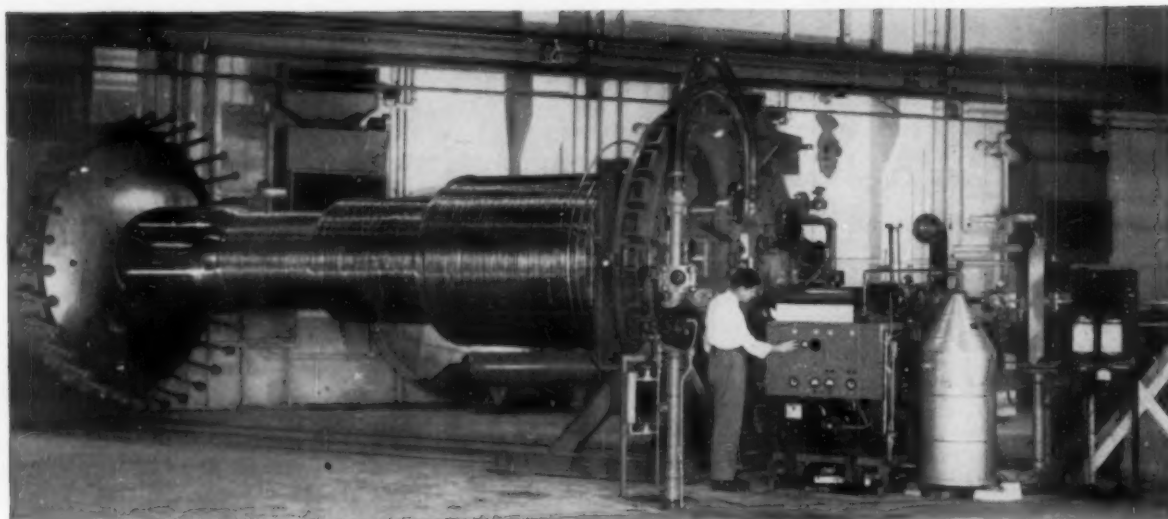
New Indictment Adds Fuel To "Beck-Must-Go" Drive

Dave Beck's indictment in Seattle last week on a grand larceny charge, based on the sale of a union-owned automobile, has stiffened demands that he quit as president of the Teamsters within two weeks—or be ousted.

The latest indictment accuses Beck of having sold a car owned by the Western Conference of Teamsters for \$1,900 in 1956, and pocketing the money. Earlier ones accused him of evading \$56,420 in federal income taxes.

Beck last week scheduled a Teamsters executive board meeting for Aug. 5, after three postponements. Leaders of a "Beck-must-go" faction already had planned to demand his resignation at the board meeting. Now, they say, "if Beck doesn't resign, we are going to fight to have him thrown out."

The "Beck-must-go" fight is led by two Teamsters vice-presidents in Chicago, William A. Lee and John T. "Sandy" O'Brien, the latter a candidate to succeed Beck. The two officers charge that Beck is "trying to dig in," to maintain his power in the union so that he can hand-pick his successor at the Teamsters convention in September.



Van de Graff accelerator in ONR's Naval Research Laboratory. Many substantial contributions in the field of nuclear physics have been made by ONR scientists.

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The Navy has an enormous requirement for nearly every kind of scientific and technological information. Since its establishment, ONR has supported scientific research in nearly every major scientific field. Its research results support development in Navy bureaus, in aircraft, guided missiles, ships, medicine, training, logistics and other areas. ONR also supports exploratory development to test the feasibility of radically new weapons concepts.

Most ONR research is performed under contract in universities, non-profit institutions, and industrial laboratories. Research is also performed at the four laboratories under ONR supervision: the Naval Research Laboratory, the Training Device Center, the Underwater

Sound Reference Laboratory, and the U. S. Naval Biological Laboratory.

Out of ONR's laboratories have come such developments as the earliest radar; major advances in radio telescope; high altitude research (employing both balloons and rockets, such as the well-known Viking); many contributions in nuclear physics, nuclear power, metallurgy, mechanics, and chemistry; advances in physiology, biology, and psychology as well as an extremely wide range of developments in weapons controls, armament, amphibious warfare systems, underwater ordnance, aircraft instrumentation, undersea warfare—and in many related fields.

Typical of ONR's latest work is logistic support of the Earth Satellite Program, being carried on by ONR's Naval Research Laboratory. The entry of the satellite into space should bring many contributions in physics, geodesy, and geophysics, with many long range applications in transportation, communications, meteorology, navigation, mapping—and space travel.

This is one of a series of ads on the technical activities of the Department of Defense.



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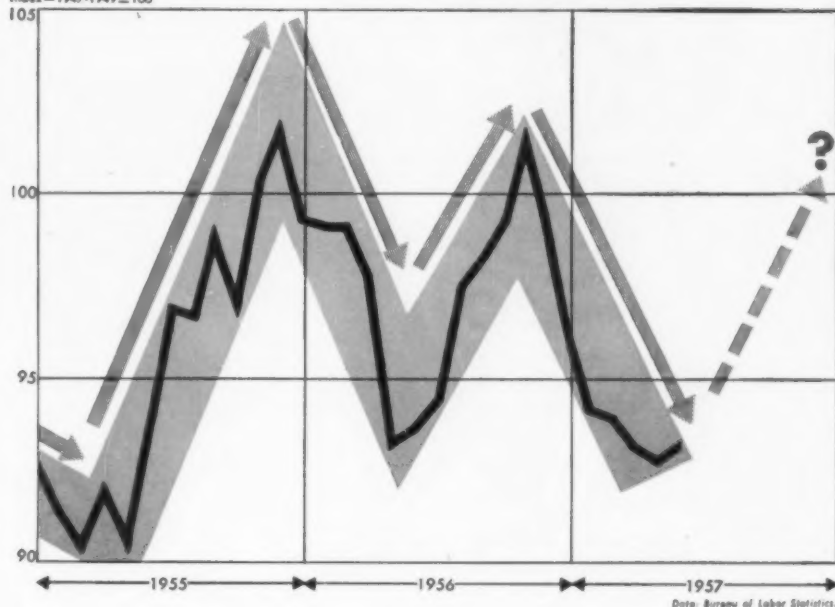
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THE MARKETS

Prices of Industrial Raw Materials Trace Out New Seasonal Patterns

Index—1947-1949=100



Will They Take Off Again?

Prices of industrial raw materials have had a stiff decline so far this year, but they seem poised for a turn.

This is what has been happening over the past few years, and certain characteristics of the present economy seem to favor this short-run price cycle.

Down in the spring, up in the fall. That's the routine, at least superficially, that the prices of basic industrial raw materials prices seem to have been tracing the last couple of years (chart, above).

And this inevitably raises the question: Will they repeat the rise over the remainder of 1957?

• **The "Ifs"**—There are a lot of "ifs" involved in the answer, of course. First and foremost, there's the question of whether the pattern has any inherent validity. Most efforts to chart the future on the basis of past performance are vulnerable, to say the least. This is particularly true of prices.

And always there's the question whether industrial output will turn up this fall, increasing the demand for raw materials.

Yet, in the clear light of hindsight, reasons can be brought forward to rationalize some such short-run cycle in prices.

Bear in mind that business has performed a little like the price chart. In the early months of 1955, it was just getting up steam after the 1954 setback; industry wasn't in any hurry to build inventories. But, by early autumn, the boom had become so convincing that demand sent prices kiting. In 1956, there was spring hesitancy and an autumn revival. This year has more or less repeated the 1956 experience, so far, and hopes are widespread that it can follow through with a fall revival.

• **Contributing Factors**—Meanwhile, there are certain built-in characteristics of the present economy that favor first-half hesitancy and second-half improvement in prices:

The Tax Lull—Inventories cost money to carry, and money is a scarce commodity around income tax time. Thus it is easy to see why corporations should buy sparingly in the early months of the year. And the tax date also is a time

when the federal government is taking in a lot more cash than it pays out—a deflationary factor, at least theoretically.

The Wage-Price Pull—At midyear, it has been customary for the big, pattern-making wage settlements to go into effect. These, in turn, have become the occasion for price increases to pass along higher costs.

New-Model Cars—Along in August, or at the latest September, Detroit starts building inventories of flat steel and the many metal components for the start of new-model runs. High auto output from then till Christmas has put a squeeze on steel supply in each of the last two years. On the other hand, slightly disappointing consumer reception of the cars has turned auto's production curve down long before its traditional spring peak in each of the last two years, soaring demand for raw materials in the process.

Metals are the dominant raw materials of industry, of course, and their prices tend to pull the greatest weight in such a price average. Under recent conditions of slack demand, it is little wonder that the price averages have been sliding.

However, most people in the metal trades now are at least hopeful that inventory liquidation has about run its course. Those who take the most sanguine view put it in these terms:

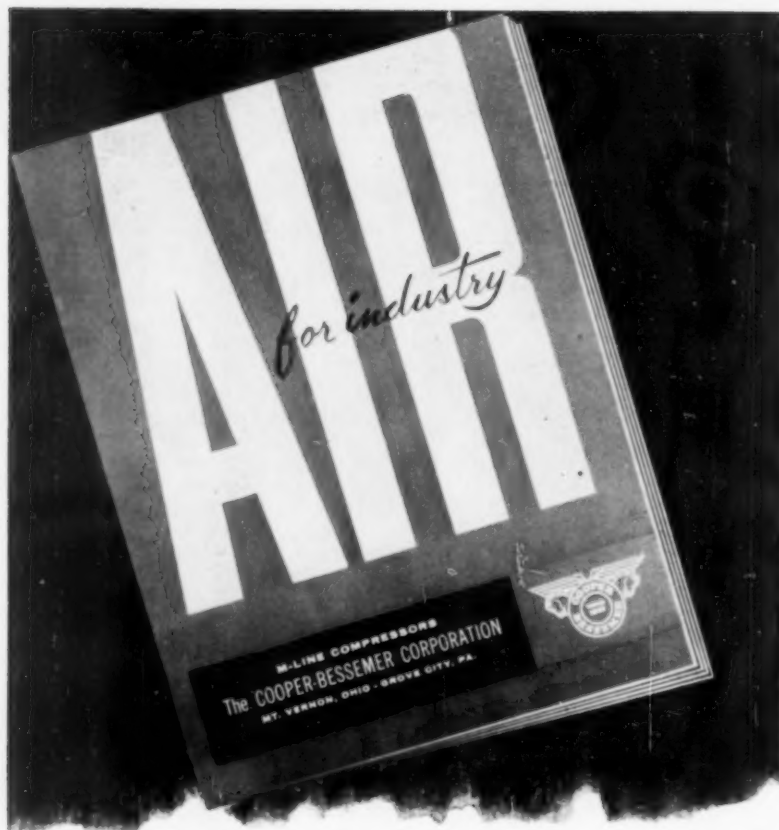
Once users of metals see the auto companies buying again, they'll turn loose their orders for fear of getting left. Then, if auto demand turns out to be really vigorous, there's every likelihood that markets not only will be good but supplies may even turn out very tight indeed.

• **Room for a Rise**—Without any such squeeze, however, there's room for a rise in prices. Steel has initiated the move as the result of higher wages. Aluminum is getting ready to follow suit. And major nonferrous metals such as copper, lead, and zinc have come down enough to look comparatively cheap.

Zinc, at 10½¢ a lb., is down from 14¢ and at the lowest level since the spring of 1954. Moreover, the price slide improves its position relative to aluminum in the use where they collide most strenuously—die casting.

And copper has dropped from its "official" high of 46¢ a lb. (the red metal peaked above 50¢ in the so-called outside market) to an official 29½¢ now.

At the moment, there is a lull in metals due to industry-wide vacation shutdowns. Once the reopenings start, sales managers for metal producers will begin to take market soundings again in dead earnest. **END**



NEW BULLETIN *on meeting the need for industrial or shop air supply*

- Describes Cooper-Bessemer
M-Line Natural Force Balance
Compressors, 200 to 6,000 hp.
- Explains the advantageous
new features developed by one
of America's oldest engine
and compressor builders.
- Simply ask for Bulletin M-81,
"Air for Industry".

Cooper-Bessemer

GENERAL OFFICES: MOUNT VERNON, OHIO

ENGINES: GAS, DIESEL - GAS-DIESEL
COMPRESSORS: RECIPROCATING AND CENTRIFUGAL
ENGINE MOTOR OR TURBINE DRIVEN

Wall St. Talks . . .

. . . about a candid
market view . . . disturbing
gyrations . . . altitude record
. . . rails and aircrafts.

The candid confession of one market vet: "The market has entered well into the silly stage. Its ups and downs are now largely without reason. Personally, I expect the general rise to continue, but don't ask me why."

A sampling of the recent market gyrations that disturb some Streeters: On a single day last week International Business Machines slid off \$12; Johnson & Johnson rose \$94; American Potash, U. S. Borax, and Schering Corp. soared \$8, \$7, and \$5 respectively, then promptly lost most of the gain, or even more. Pennsalt, Stauffer Chemical, Virginian Ry., and International Salt zoomed some \$5 each, while Minneapolis-Moline skidded \$6.37, Havg Industries, \$5, Corning Glass \$41, and Zenith Radio \$4.

Latest rumor exploded: That Monsanto Chemical and American Viscose would soon announce some "interesting" plans, either individually or as joint owners of Chemstrand Corp.

A new 20½-year altitude record: On Monday Superior Oil Co. (Calif.) zoomed \$120 to a \$2,000 figure—highest price chalked up by any Big Board stock since Pacific Land Co. shares hit \$2,040 way back in December, 1956. As a result, the 422,000 outstanding shares of this prominent oil and gas producer now have a market value of \$844-million, though the last dividend was a \$2 payment in September, 1955.

Rail stock analysts admit that first-half earnings of the Class 1 roads probably slid 12% to 15% under 1956 levels. (May net was down 24%, and June was no better.) Nonetheless, they are currently enthusiastically "bulling" their wares. The reason: The rails, they say, will be able to make sharp freight rate hikes by Sept. 1 at the latest. Thus they expect (1) the July-December net to equal 1956's last half (which reflected steel strike effects), and (2) the full-1957 profit drop to be only a moderate one.

Lo, the poor aircrafts: Prominent members of this group, until recently a prime buying target, are now ranging from 25% (Douglas) to 52% (Republic) under bull market highs. The cause, of course: Worries of traders over recent changing cold-war fashions.



SKF

7744

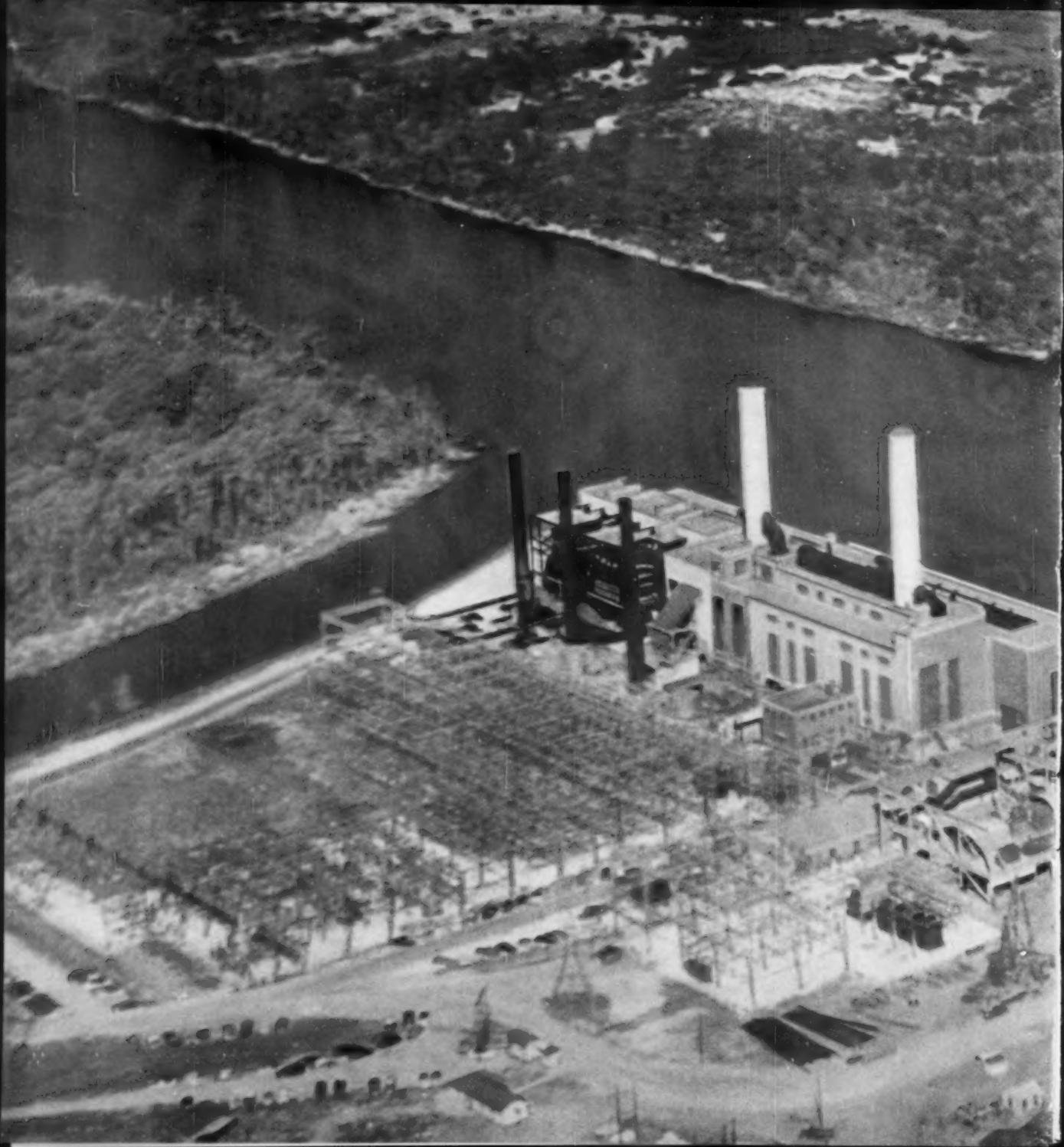
EVERY TYPE—EVERY USE

Ball Bearings
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* Reg. U.S. Pat. Off. Tyson Bearing Corporation

SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.

WHAT HELPS BUILD



POWER PLANTS ?



*T. Cortlandt Williams,
President of Stone & Webster
Engineering Corp.,
Describes Role of Business and
Technical Magazines*

"Our engineers must be well-versed in the problems of most specialized engineering fields, and well-informed and experienced in the ever-changing techniques and developments required to solve these problems," says Mr. Williams. "We believe it is through the free interchange of ideas that the great technical advances of our generation have been possible. Certainly technical and business magazines serve as important clearing houses for ideas, and add to the experience engineers have acquired on projects."

At Stone & Webster, 558 Key Men Pay to Read One or More McGraw-Hill Magazines

McGraw-Hill magazines are bought by men who must keep pace with new developments, changing techniques and processes. These men specify and buy today's industrial products and services. Your advertising, placed in McGraw-Hill magazines, will help you convert these buyers into customers.

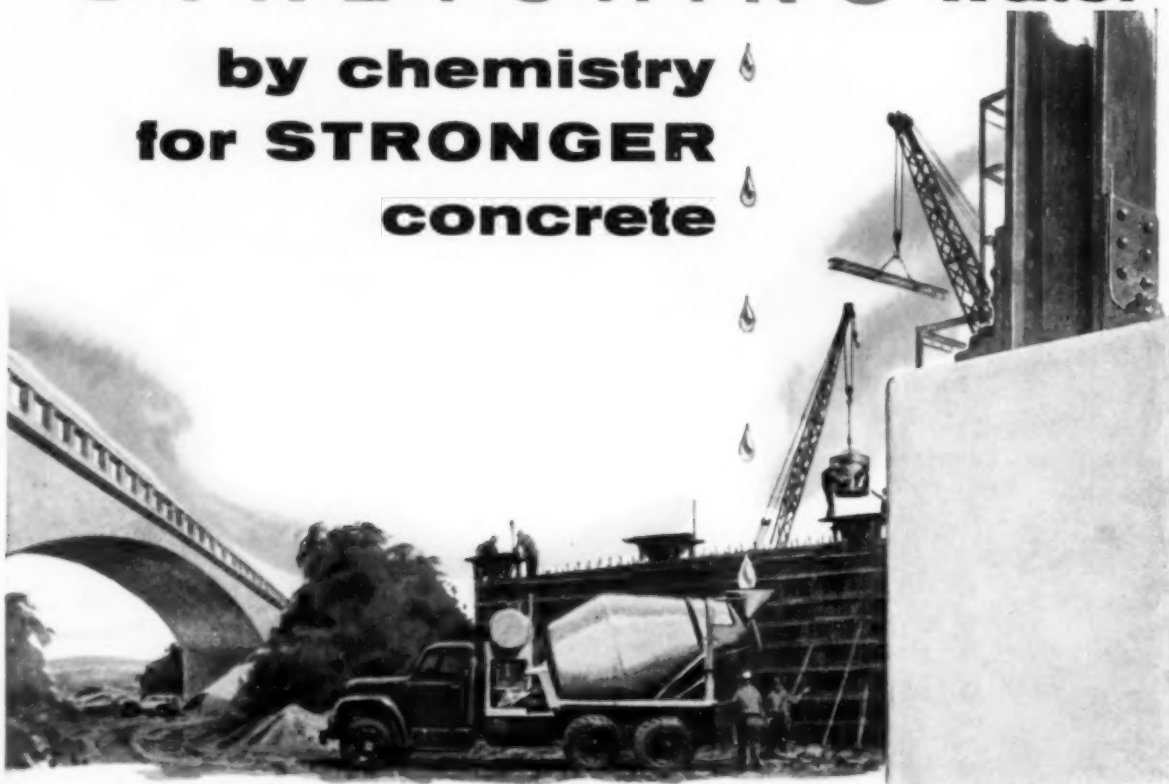
McGraw-Hill Publications

McGRAW-HILL PUBLISHING COMPANY, INC.
330 West 42nd Street, New York 36, New York

DEEP IN THE HEART OF TEXAS—Gulf States Utilities Company's Neches Power Station near Beaumont, designed and constructed by Stone & Webster Engineering Corporation. Present total station capability: 376,000 KW and 3,000,000 lbs/hr of steam. Plant is typical of \$4 billion worth of Stone & Webster-built power stations, refineries and other industrial facilities throughout the world.



STRETCHING water **by chemistry** **for STRONGER** **concrete**



Contractors and engineers know they can get an easier-flowing concrete mix simply by adding more water. But a single excess gallon of water per bag of cement can dilute cement paste and weaken a concrete structure as much as 1,000 pounds per square inch.

Problem: how to "stretch" the water . . . make a smaller amount do more work?

Today the answer is found in a remarkable product of Dewey and Almy research. Known to the trade as "WRDA"—a trade-marked shorthand for "Water Reducing Agent"—this chemical additive disperses cement particles within the concrete mix . . . makes them flow together more smoothly.

Water content can be reduced by 20%. The mix is *still* fluid and easy to pour. Yet concrete quality is improved and compressive strength is increased up to 30%. Moreover, a special catalyst in WRDA speeds the reaction between cement and water for higher *early* strength.

WRDA is the culmination of research backed by 25 years of experience in cement mills and millions of barrels of cement. It is typical of the Dewey and Almy method: develop a useful specialty; prove it out; follow it up with service. In this fashion, Dewey and Almy helps create better products more efficiently . . . and more economically . . . throughout industry.



DEWEY AND ALMY
CHEMICAL COMPANY
DIVISION OF W. R. GRACE & CO.
Cambridge 40, Mass.



BATTERY SEPARATORS • CHEMICAL PRODUCTS FOR THE CONSTRUCTION INDUSTRY • CONTAINER SEALING COMPOUNDS • "FLOWED-IN" GASKETS
METEOROLOGICAL BALLOONS • ORGANIC CHEMICALS • SHOE MATERIALS • SODA LIME • TEXTILE PRINTING PRODUCTS

PERSONAL BUSINESS

BUSINESS WEEK

JULY 20, 1957



Guests on yachting cruises will make life easier for their hosts and have smoother sailing if they follow a few simple rules:

- **Don't wear hard-soled shoes.** To preserve the craft's spit and polish—and for your own safety—take along shoes with nonskid rubber cleats or rope soles. Tennis shoes are also good.
- **Don't bring a suitcase.** Pack your gear in a soft collapsible bag. And carry suits in a hanging plastic case.
- **Take comfortable informal clothing**—whatever you would wear at your summer home—particularly things that dry easily. Pack at least one sweater, a waterproof jacket, a light plastic raincoat, a soft hat, and long-sleeved shirts to ward off sun and spray.
- **If there's a paid captain and crew aboard,** they consider themselves professional seamen—not servants. You may want to tip them or the steward (depending upon the length of the cruise), but check first with your host.
- **If it's a smaller boat with no crew,** offer to lend a hand, of course. But don't be too eager. If the skipper needs your help, he'll ask for it. Otherwise, it's best to sit tight and let him work around you.

—•—

If you're thinking of leaving your art collection to a museum or some other institution, it might be profitable to make the gift now. A new Treasury Dept. ruling allows present income tax deductions for future or partial donations—and still permits you to keep your treasure for at least part of the year. Here are two examples of how the ruling works:

- You transfer to a museum **present title to an art object.** However, you reserve the right to hold the object during your lifetime. In legal language, you have given the museum a "remainder interest" after your "life interest." **You can deduct** as a charitable contribution the present value of the "remainder interest" transferred to the museum. The Treasury Dept. has tables from which you figure such values.
- You transfer to a museum **one-fourth present interest.** The gift provides that you shall possess the picture nine months of each year, the museum the other three months. **You can deduct** the present fair market value of the undivided one-fourth interest. That is, if the art object currently is worth \$80,000, you can deduct \$20,000. However, if you merely transfer part interest and reserve the full right of possession until you transfer the remaining interest, **you get no present deduction.**

In making such a gift, there should be a formally executed "deed of gift" which is delivered to the institution, and which it, in turn, must formally acknowledge.

—•—

Home intercommunication systems are more than just electronic gadgets. They're proving to be highly practical in more and more large homes and summer houses these days.

The "intercom"—a system of microphones and speakers—can connect all rooms and all parts of an estate from gatehouse to boathouse. It can pick up sounds from the nursery or calls from a sickroom, answer the front door, send phonograph or radio music throughout the house, be tied in with hi-fi (if skillfully handled), and serve a score of other uses from awakening a guest to summoning the swimming pool crowd to tea.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

JULY 20, 1957

There is a wide variety of systems to pick from. All have a master unit or central control point, and usually several substations. The master unit—which can “talk” to all points—usually contains an on-and-off switch for the entire system, a connection for radio or phonographs, a volume control, and selector switches for individual rooms.

The substations have combination speaker-receivers, and sometimes individual volume control and speaking-listening switches. They can talk only to the master station, but not to each other. But for the greatest practical use, your best bet is a system in which each station, in effect, is a master station that connects with all others.

Price range is around \$500 to \$1,000 installed. You can go to \$1,500 or higher, however, if you want an estate-size system.

If you want to read a popularized version of Twentieth Century Fund's mammoth work, America's Needs and Resources, published several years ago (BW—Apr.30'55,p158), get a copy of a new illustrated report in book form, out this week, called **U.S.A. in New Dimensions** (Macmillan Co., \$1.50).

Weekend guests looking for a gift for the host or hostess who has everything can find interesting old prints (100 to 200 years old) on almost any subject—sports, architecture, cityscapes, theatrical playbills, American history, railroads, airplanes, etc: colored or black and white. They're available “on approval” from Argosy Gallery, 116 E. 59 Street, New York, N. Y.; \$2 to \$50 each.

For the executive who likes to cook: Try your hand at broiled live Maine lobster. Cross large claws of live lobster and hold firmly on back. Split with sharp knife from point between the two large claws through length of body and tail. Remove vein and craw.

Prepare dressing of cracker crumbs and melted butter, seasoned with salt and Worcestershire sauce. Spread dressing generously inside shell. Place large lettuce leaves over dressing to retain moisture. Broil lobsters about 6-8 in. below flame for 25-30 min.

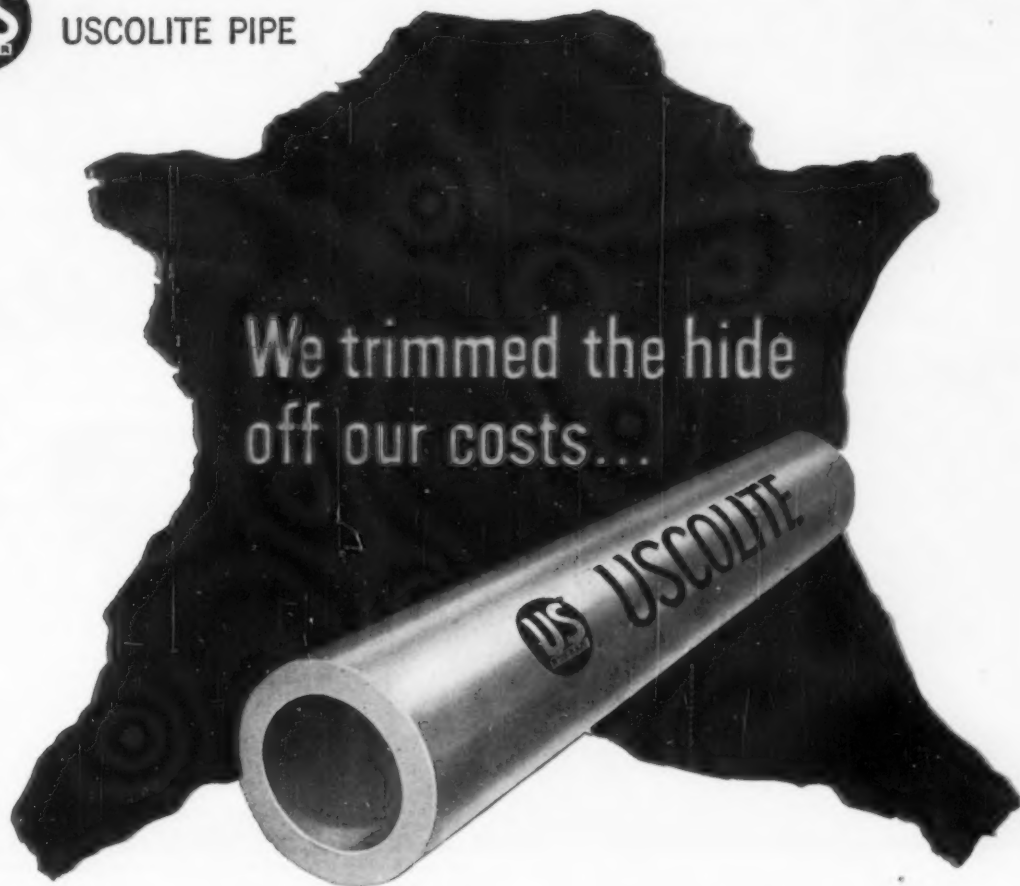
Golf links: Golfers who hit the rough when it comes to finding king-size golfing shoes can order sizes 10 to 16, AAA to EEE, from King Size, Inc., Brockton, Mass.; around \$15. . . . A Long Island, N. Y. real estate developer is offering over 50 homes at \$38,000 and up—each one sporting a three-hole golf course. . . . As for keeping fairways free of excess rain water—there's a new mechanical turf blotter called the Aeri-Dryer, engine-driven like a lawn mower; by West Point Products, West Point, Pa.; \$475.

World of electronics: A new portable radio-phonograph is on the market—it weighs six pounds, works off four flashlight batteries, measures about 8 by 11 in. The Rockland Rambler plays 6,000 records (short-playing) or 750 hours of radio without a battery change; Rockland Precision, Orangeburg, N. Y.; \$80.

A telephone-whistle service is now offered to subscribers in the Allentown-Bethlehem section, by Bell Telephone Co. of Pa. You get a pocket-size radio-controlled whistle that will sound off if you're within eight miles of the company's sending center. This means you have an incoming call to answer. Cost is \$5 for the whistle and \$5 per month for 80 calls.



USCOLITE PIPE



We trimmed the hide
off our costs...

\$10,000-a-year saving with just \$450 of Uscolite Pipe™

Rarely can you find a more corrosive environment than that of a tannery. For instance, pipes in one large Minnesota tannery (carrying salt, sulfuric acid, alkali, hard water and chrome liquor) became corroded and had to be replaced frequently, some as often as every week. Also, there was the constant hazard of dangerous chemical leaks. A piping break always damaged the floor, often stopped plant operations.

Then, 2 years ago, they ordered \$450 worth of Uscolite® Pipe. Result: savings of \$10,000 in just one year.

"In all that time," says the tannery manager, "the Uscolite Pipe has shown no sign of wear, even though in use 24 hours a day, 6 days a week. We're ordering more and more of it for use throughout the plant."

Uscolite plastic pipe is extremely light in weight, yet has very high impact strength. It is resistant to corrosive chemicals and is non-contaminating. The Uscolite line includes everything for a complete pipe assembly, including the Hills-McCanna Valve. Contact any of the 28 "U. S." District Sales Offices, any of the selected "U. S." Distributors, or write us at Rockefeller Center, New York 20, New York.



After 2 years on the job, note the smooth, unharmed exterior of Uscolite Pipe (at left) while metal pipes are heavily corroded.



Mechanical Goods Division

United States Rubber

SEE THINGS YOU NEVER SAW BEFORE. VISIT U. S. RUBBER'S NEW EXHIBIT HALL, ROCKEFELLER CENTER, N. Y.



"Buccaneer" Outboard Motors are manufactured by Gale Products, Division of Outboard Marine Corp.

Add **COPPER** ...and the "put-put" purrs!

The portable marine power-plant has been growing up!

If you still remember the hard-to-start, quick-to-die engine of an earlier era . . . well, you'd hardly recognize today's sleek, streamlined models as outboard motors.

Copper alloys have helped make outboards bigger, higher-powered . . . with more convenience features, more accessories, and *much more reliable performance on the water.*

Copper-alloy components account for motor cables, choke control rod, throttle control gear and shaft, drive shaft and gear bushing, shift and shift-lever assembly, speed needle valve, water pump impeller and high speed nozzle . . . and other long-wearing parts.

Does *your* product chug along with a "put-put-put" instead of speeding by with a thrilling "purr-r-r"? Is *your* market growing . . . and demanding new product-improvements?

Copper may be your answer. Copper for high electrical conductivity, for corrosion resistance, for efficient heat transfer, for miniaturizing. And Copper is easy to work with . . . to machine, form, draw, stamp, polish, plate, weld or braze. By reason of the higher-cash-value of your manufacturing scrap, your net cost for Copper is reduced.

Plan your improvements with Copper! For the Copper Industry will provide ample supplies for all the years that stretch ahead.

COPPER • BRASS • BRONZE

in over 40 Standard Alloys!

In Management

• • •

SEC Blasts Bellanca's Reports, Demands More Data on Its Doings

Bellanca Corp., the holding company that last year featured in a summer stock tumble, was back on the public stage last week—this time because of troubles with the Securities & Exchange Commission.

Early last summer Bellanca was riding high. However, principal owner Sidney Albert had a large portion of his 75% or more holdings out as collateral for loans that Bellanca assumed during a complex series of acquisitions.

Caught in a market decline, the stock fell below collateral value. Holders started to sell, which shot the stock down even faster—from a high of \$25.62 to a low of \$1.75. That was the end of the Bellanca empire (BW—Sep.15'56,p84).

From hegemony over some 60 concerns, the empire has dwindled to four subsidiaries. But SEC still wants to know what went on and it claims that Bellanca's 1956 annual report, filed two months late, does not clear up such tangled details as these:

- Albert's various loans to the company.
- Bellanca's sale of certain assets to Piasecki Aircraft Corp., which meant the holding company was moving out of the aircraft parts business, one of its principle activities.
- The personal interests of officers and directors in some of the Bellanca transactions.
- The use by certain officials of company holdings as collateral for a personal loan.

Bellanca concedes that some of its reports to the SEC may have been technically faulty, but it denies intent to deceive.

• • •

FTC Hits Supplier-Customer Merger Of Union Carbide and Visking

Federal Trade Commission lawyers last week charged that the supplier-customer marriage in December between Union Carbide Corp. and Chicago's Visking Corp. violates the anti-merger law.

The case involves an inter-company relationship resembling the one condemned in the Supreme Court decision ordering du Pont to dispose of its stock holdings in General Motors (BW—Jun.8'57,p41).

This is FTC's first challenge to an acquisition in the merger-minded chemical process field, and it may set important precedents for various industries.

In effect, FTC says that by taking over Visking, Union Carbide puts itself in a position to hinder competition and gain monopoly control over the production and sale of polyethylene resin and film.

The agency claims that in 1956 Union Carbide's polyethylene resin sales, which were topped \$91-million, represented more than half of total industry sales and

MORE NEWS ABOUT MANAGEMENT ON:

- P. 166 Construction Men; What Makes Them Different?

supplied almost 90% of Visking's needs. Visking in turn accounted for 65% of the total sales of synthetic sausage casings, and about 40% of polyethylene film sales.

• • •

Printer's Ink Is Latest Enterprise Added to Fast-Growing Vision, Inc.

Vision, Inc., fast growing international publishing and management, services concern, last week added Printer's Ink Publishing Co., the 69-year-old advertising magazine, to its properties. Neither company would reveal price or details, but indications are that it was a combination cash and exchange of stock deal.

Vision, which does a \$5-million a year business, already operates three magazines; the Spanish language Vision; its Portuguese language sister, Visao; and Semana, a Colombian weekly. It also publishes training manuals and pamphlets, does management consulting (largely at the supervisory level) both here and abroad, and provides market research services.

For Vision, acquisition of PI may be the springboard for a projected international newsletter and subscription service for advertising men.

PI, always a profitable property (the 1956 gross was \$1.6-million) but lately dropping in advertising linage, has had three publishers in five years.

• • •

Management Briefs

Swan-Finch Oil Corp. agreed in court last week that company director Ralph E. Damp could look at its books. Damp had been ousted as president and then as a director by the board for attempting to do just that, after the SEC had rapped unregistered sales of common stock. Damp was later reinstated as director (BW—Jul.6'57,p77).

Penn-Texas Corp. is still buying up stock in Fairbanks, Morse & Co. P-T had failed in a takeover effort of F-M and finally made a formal treaty agreeing to attempt no takeover for a five-year period. The purchases are purely for investment, says P-T.

Cultured managers: That's the aim of a series of special courses at the University of Houston. Two nights a week, over four 12-week semesters, the university is holding special courses for businessmen in world history, literature, psychology, philosophy—and economics.

Shopping: Motor Products Corp., of Chicago, is selling off its assets, plans to buy into another business. A year ago, the company sold its Deep Freeze Appliance Div. Last fall it closed down its auto parts business, and now, as contracts are completed, will put its aircraft part business on the block. The company will have a \$2-million tax loss and \$11-million in cash to shop around with.



CONTRACTORS are a versatile group, as much at home at the embassy reception and executive suite as in the excavation pit.

Off-Beat Men for Off-Beat Jobs

Heavy construction men (cover, pictures) are a rugged and individual breed, resembling hardly at all their industrial counterparts.

THE FACES in the gallery (right) are all well known in the heavy construction industry. As individuals, they vary from pole to pole. But as a group, they could almost have been turned out from the same mold. Scratch their surfaces and you find that:

- All know their business from the ground up. Most of them started at the bottom, and came up the hard way.

- They're gamblers, willing to risk their shirts on making a kill—or on going bankrupt in the attempt.

- They're all men who must work for themselves. They feel pinched working within a rigid framework, and are suspicious of those who can work under heavy organization.

- As employers, they get along well with labor. Most of them started in union ranks, still carry union cards.

- They're a restless crew, never like to be far from the flying dirt. Many spend five times as much time commuting between far-flung projects than they do at their home base.

- They're unusually mobile socially, and can make the shift from the excavation site to the embassy reception easily.

- **Economic Prop**—As a group, the men in the pictures are a cross-section of a rambunctious, hotly competitive industry made up of about 475,000 contractors. Last year, the industry put in place about \$29-billion of everything from corner stores to giant dams. (This figure does not include housing, which is not considered heavy construction, although some heavy construction companies do build houses.) Over the next decade, the industry estimates that it will be doing a \$400-billion business, at least. Some economists predict that heavy construction may be the major prop under the U.S. economy for the next 10 years or so.

I. A Different Breed

At first glance, it might seem odd that the construction industry has produced a breed of executive different from that of the industrial world. A second look, and it's not so surprising.

Unlike his prototype in business, the contractor never turns out the same product twice. No two buildings, bridges, roads, or dams are ever exactly alike. He must, in essence, set up a factory to make one product in one



GEORGE BRYANT
Austin Co.



ALLEN D. CHRISTENSEN
Utah Construction Co.



STEVE BECHTEL
Bechtel Corp.



LOU PERINI
Perini Corp.

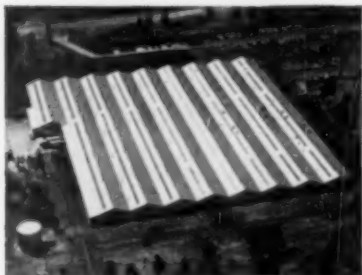


PETER KIEWIT
Peter Kiewit Son's Co.



HENRY MORRISON
Morrison-Knudsen, Inc.

**It makes sense
to standardize
on buildings, too!**



Standardized Butler metal buildings are available from stock in sizes from a small pump house to structures of any desired width and length.

**if they are
pre-engineered
Butler
buildings**

Everyone knows that standardization brings down costs. But is it—at last—practical in construction too? Thousands of firms—large and small—have learned that it is extremely practical—with Butler pre-engineered metal buildings.

Pre-engineering and mass-fabrication save untold hours of engineer's and executive's time and cost, while assuring invariable high quality. Fast construction saves weeks to months of building time—you are in business sooner. Excellent light, ventilation and climate control are "built-in" features of Butler buildings. Clear spans up to 100 feet provide more efficient interiors. These buildings are good enough that they are used as factories, and retail stores, low enough in price for warehouses. Learn how you can standardize on good construction—and cut costs with Butler buildings—lowest cost way to build well. Phone your nearest Butler Builder for all the facts. He's listed in the Yellow Pages under "Buildings" or "Steel Buildings." Or write direct.



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Manufacturers of Buildings • Oil Equipment
Farm Equipment • Dry Cleaners Equipment
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Custom Fabrication

Sales offices in Los Angeles and Richmond, Calif.
Houston, Tex. • Birmingham, Ala. • Atlanta, Ga.
Minneapolis, Minn. • Chicago, Ill. • Detroit, Mich.
Cleveland, Ohio • New York City • Syracuse, N. Y.
Washington, D.C. • Burlington, Ontario, Canada



DEL WEBB

Del E. Webb Construction Co.

place at one time, then dismantle it completely when he has finished.

He can't easily adjust his prices to unexpected costs. Major projects may go on for as long as five years. Yet months before the first spadeful of earth is turned, he has to bet a firm figure on the price he's going to bring it in for—with no inkling of what's going to happen in the meantime to material costs or wages.

He faces the toughest competition there is. In the past 10 years, the number of companies of all kinds has increased 26%, the number of retail firms 19%, service companies 5%—but the number of contractors is up 77%. He has no steady market, very little repeat business. His payroll fluctuates not merely from season to season, but from day to day.

• **Advantages**—But he has some advantages, too. To get to the top, there's no corporate hierarchy to buck; construction is one of the few fields left where a man can start from scratch and run up a multimillion-dollar company within a decade. Both success and oblivion can come in a hurry. Profit margins are below industrial standards—a 2% net return on volume is high—and one serious mistake in judging costs can finish a company.

But the new ones are constantly clambering up. This year, for instance, on a major bridge for the New York Thruway, the steelwork is being done by a small New Jersey company that underbid Bethlehem Steel Co. Nobody is betting on the outcome, but the history of every major construction company follows a pattern: biting off more than it can chew, then chewing it.

• **Rugged Individuals**—The uniqueness doesn't particularly carry over to overt personality characteristics. Builders as a group are probably the most rugged

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Mr. Manufacturer**

If your products are distributed in the following channels:

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- **CUTLERY • VARIETY**
- **DRUG CHAIN**
- **SPORTING GOODS**
- **AUTOMOTIVE**
- **LAWN & GARDEN • PREMIUMS**

Arrange now to be an exhibitor at the

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EXHIBIT**

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a Year**

**FOR RECORD STORAGE
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Keep inactive records safe, clean and neat with Liberty Storage Boxes. You'll find them sturdily built... and so economical. The cost of a Liberty Box over a ten-year period figures out at just pennies a year! Write today for free catalog—find out how Liberty Boxes can help you lower record storage costs. Sold by stationers and office equipment dealers from coast to coast.

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2607 North 25th Avenue • Franklin Park, Illinois

Chicago to Los Angeles

"Pretend you don't notice him, dear . . . it's their idea of impressing us that a bit of California goes right with you on the

GOLDEN STATE



Rock Island

202

individuals left, but few of them fit the stereotype—brawny, ham-fisted, bull-throated.

A few come to public fame as much for outside activities as for construction work. For example, Del Webb of Phoenix and Lou Perini of Boston own big league baseball teams.

Perini, whose Perini Corp. does over \$100-million, started buying stock in the Boston Braves in 1930. In 1949, when attendance was starting to decline badly, he and two brothers bought out other stockholders, later moved the team to Milwaukee. He has been president of the Braves since 1949, only last year dropped the job because carrying two full-time jobs was getting a bit rough.

Webb of Del Webb Construction Co.—who built the \$20-million Union Oil Center in Los Angeles, luxury hotels, and vast housing projects in several states—started out as a semi-pro ball player (carpentering in the winter), soured on the game when his arm went bad in the mid-20s, bought back into baseball after World War II "as a cold-blooded business proposition," when he became co-owner with Dan Topping of the New York Yankees. He has since become an ardent fan—and a substantial chunk of contracting business comes to him from Yankee fans.

Few construction men play much, but when they do, they seem to play hard. Bruce McNeil, whose Los Angeles-based McNeil Construction Co. built both the big \$150-million basic magnesium plant near Las Vegas and Disneyland, as well as a big chunk of the height-limit structures in Los Angeles, has no other business interests, but is an avid hobbyist—yachting, golf, and photography.

John MacLeod, who runs Los Angeles' Macco Corp., best known for pipelines, dams, and waterfront work, carries his gambling instincts over to the horses, spends his spare time at Santa Anita or Hollywood Park.

II. A Family Business

Construction is a family business. Nine out of 10 heads of constructing firms today are either the original founder, a son, or a grandson. But even in the frequent second-generation inheritors, it is almost an invariable rule that the boss did it the hard way, from the bottom up. Formal educational levels are not high, even today, by usual industrial standards. Most start in the business young.

Henry Morrison, boss of Morrison-Knudsen Co., Inc., of Boise, Idaho, is fairly typical. He started as a water boy at 14, after two years of high school. He worked his way up to project inspector for the Bureau of Reclamation,

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JOHN MACLEOD
Macco Corp.

finally went into business directly, and in his early twenties farmed with Morrison-Knudsen. Del Webb of Phoenix quit high school to work as a carpenter. John MacLeod was a carpenter's apprentice at 17. Frank Rooney, of Miami, was a plasterer's apprentice at the same age.

• **The Field**—Who ranks who in the industry is largely a matter of guesswork. Since the majority of the companies are family-owned or tightly held, figures are rare. Of the 450,000 contractors, about 9,000 are in the top official category—\$1-million or more volume a year. Probably not more than a dozen or so hit the \$100-million or better group. According to outside estimates, this group includes:

Morrison-Knudsen, Inc., Boise, Idaho: over \$400-million.

Brown & Root, Inc., Houston: over \$300-million.

Bechtel Corp., San Francisco: \$300-million.

Peter Kiewit Son's Co., Inc., Omaha: over \$200-million.

Austin Co., Cleveland: over \$150-million.

Utah Construction Co., San Francisco: over \$150-million.

Perini Corp., Boston: over \$100-million.

There are probably another two dozen in the \$20-million to \$100-million range. From there on, it's a scramble.

• **Payoff**—Just as secret as company profits are the bosses' incomes. Most contractors own their own companies and, unlike corporation executives, their incomes are not a matter of record. But it's generally conceded that a contractor doing a million-dollar-a-year volume can gross at least \$50,000—if he doesn't go broke. And a company in the \$100-million class can count on

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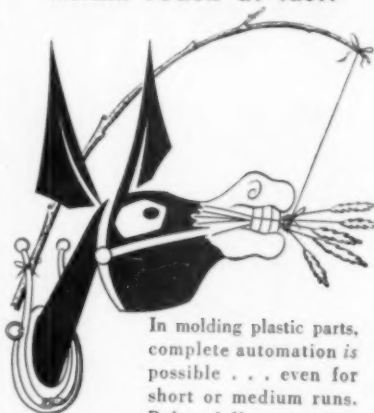
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splitting between \$1-million and \$2-million. While this doesn't put the boss in the Texas oil magnate category, it is better than most corporation executives garner.

III. Experience Counts

Formal education doesn't get too many kudos throughout the industry, although thousands of graduate engineers, and specialists of one sort or another fill many of the middle ranks. Lester C. Rogers, top man at Chicago's 56-year-old Bates & Rogers, which some other construction men tell you was "the best damn training school in the business," typically isn't impressed by specialist degrees. "You can't teach a man construction in the classroom. I judge how much a man knows by how long he's had his feet in the mud," he says.

"Experience" is almost a matter of faith—that translates into a widespread mystical feeling in most companies that the man at the top knows more than anybody. Says a vice-president of a big Midwestern company, "We'll make the preliminary estimates and plans—but the boss checks it in detail before it goes."

Macco, best known for pipelines, dams, drydocks, and waterfront work, but which has also built across the board, including highways and industrial buildings, gets most of its work on a bid basis. MacLeod figures his company can take low bid successfully so often "because our old-timers are so grounded in every phase of the business from the pick handle up, they can spot any errors in the engineers' figures intuitively. Making estimates is not an exact science; it is a hazardous game."

• **Opposition**—But the seat of the pants boys get plenty of opposition. Peter Kiewit, of Peter Kiewit Son's Co., for instance, uses the most precise cost accounting, and will spend up to \$25,000 in preparing a bid for a major job. Harry Morrison, too, insists on detailed bookkeeping. "Some people think we're going to bookkeep ourselves out of business."

They have good reason to be careful. Contracting today is so competitive, and operating costs so high, that the cumulative total of little things determines whether a job goes sour. Even with the best of estimates—and "feel"—things can go off, as some contractors found on the St. Lawrence Seaway. The blue clay looked like any other blue clay, but turned out to be particularly stubborn stuff that had to be blasted and worried loose. Original bids were around 36¢ a cu. yd. Actual costs ran closer to \$1.36.

• **Moot Questions**—There's even argument as to how much practical experience you need to be a successful con-

The man who reads dictionaries

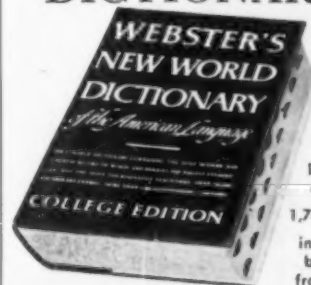


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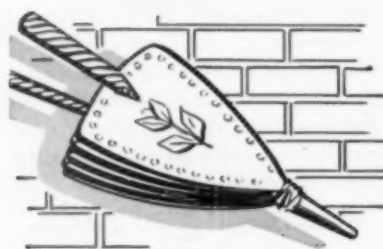
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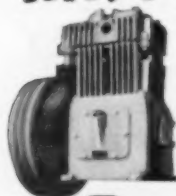
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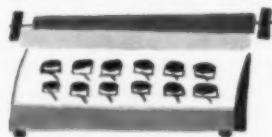
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struction boss. C. E. (Chan) Turner, Jr., president of New York's Turner Construction Co., argues that "the principal function of a contractor is not to pour concrete or lay brick, but to provide construction management."

Certainly others have succeeded without the physical background. F. W. Littlefield, for instance, executive vice-president of Utah Construction, was a Stanford graduate in social science, worked for years with Standard Oil of California and Golden State Co. Ltd., before coming to Utah. Littlefield is a grandson of one of the founders.

The president of T. F. Scholes, Inc., of Reading, Pa., a leading railroad contractor, is Dr. Merrill B. DeWire, a practicing physician and chief of urology at the Reading Hospital. He got into the business by staking Tom Scholes, a former railroad maintenance superintendent who founded it some nine years ago. When Scholes died in a plane crash in 1952, DeWire took over as head of the company.

IV. No Book of Rules

There's a certain validity in this description of what the big construction men need: "He's got to be a construction stiff, finance man, designer, politician, and human-relations expert. He's got to know more engineering than his engineers, more about costs than his accountants, be his own chief salesman, know the details of what's going on at 20 different projects, travel 200,000 miles a year, and live on two hours sleep a night. He's got to be able to deal, equally well, with bankers, working stiff, clients, project engineers, his competition, and officials of foreign governments. If he slips up anywhere along the line, he doesn't stay big."

• **Cynics**—Contractors snort at some



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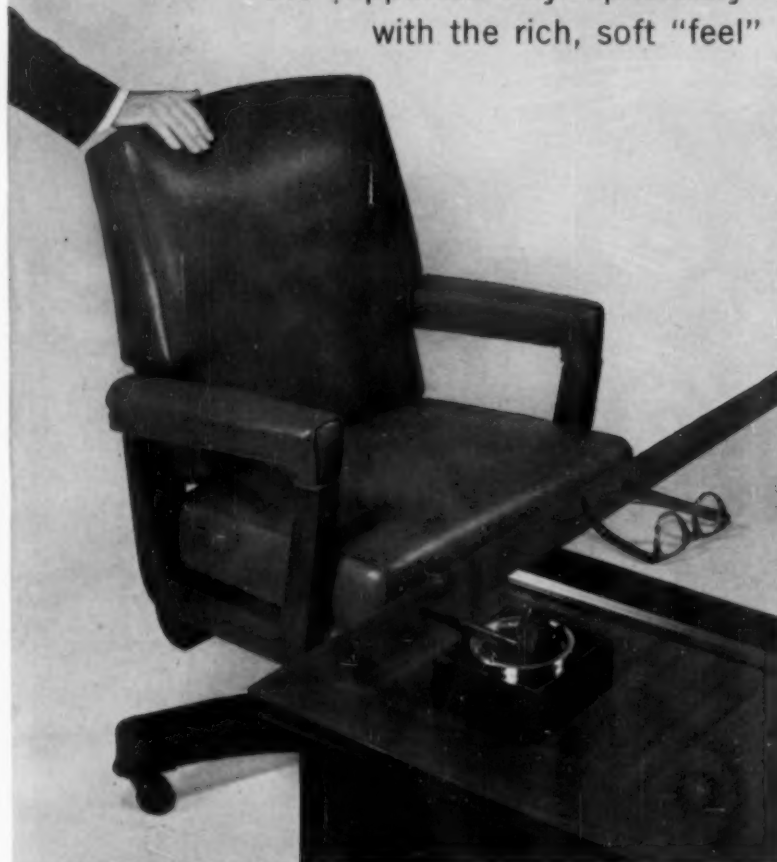
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current ideas of "management development" or "transferability of management skill." No so-called professional manager could get to first base in heavy contracting," one of the top men insists. "You've got to have a feeling for the heart and soul of the business. You've got to love to watch a structure come to life. You've got to know how the tools feel in your hand. Not 5% of the engineers graduating from the colleges today could make a go of it here. They want rules and fringe benefits to live by. They want guarantees for the future. There's no security in this business. You start low, work long—and if you got it, you make it."

Few contracting organizations have much formal organization according to current management dogmas. Even a company doing \$100-million a year sometimes operates with as few as 50 to 100 permanent employees—and many of them will be clerical help or specialists such as accountants, or a hard core of project superintendents. The top level acts as a highly mobile, flexible, problem-solving, and trouble-shooting group. Though total payroll for a group can expand to 20,000 at any given time, they're temporary workers, hired for the duration, and frequently picked up directly by subcontractors.

• **Suspicious**—Many contractors are not only wary of management theory—they're even somewhat suspicious of "organization man" loyalty.

The head of one company is seriously concerned about his successor, since there's no son. "I've got a lot of capable men around here. But I don't know. If they were capable of really running this business the way it's got to be run, with the knowledge they got, they'd have gone off on their own by now. They're good men—I pay them well, I want them around me—but if they haven't the guts to gamble on themselves, they might not have the guts to keep this company going up."

But the industry is full of men willing to take a chance on themselves. Since the end of World War II, nearly 200,000 new contracting firms have been set up, by former journeymen carpenters, bricklayers, steelmen, or cementmen. All it takes is some knowledge of the trade, and the willingness to undertake a contract on your own. Equipment can be rented. It's probably easier to become a contractor than to join a construction trades union. Lots of them fail, of course—there were almost 2,000 reported failures—and the numbers that flopped but were covered by performance insurance were believed to be considerably greater. But a lot more make it than fail—and where they fail, it's usually because there was more courage than knowledge. In last year's flops, Dun & Bradstreet reports, a

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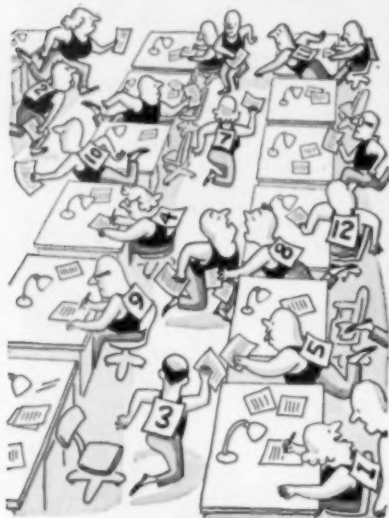
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• **Growing Industry**—Even with all the new ones coming, in construction as in other industries, the big ones are getting bigger. That's partly due to the simple fact that the projects are getting bigger. Prior to World War II, a \$1-million contract was big. \$5-million was something noteworthy. Today, projects like the \$1-billion atomic energy plant at Portsmouth, Ohio, while not usual, hardly raise an eyebrow. Kiewit handled that as prime contractor, riding herd on 120 building subcontracts, 317 material subcontracts, some 30,000 purchase orders—and bringing the job in for \$250-million under the original contract estimate.

• **Pooling Resources**—Joint enterprises—a novelty when the Six Companies, actually an amalgam of 10 separate contracting companies, tied up in the 30s to build Hoover Dam—have mushroomed, not because single companies cannot or won't tackle enormous jobs, but because the combination makes financing easier, supplies more talent faster, spreads the risk somewhat, particularly in foreign jobs—and lets a company spread itself over several projects rather than wrapping up all its eggs in a single basket. But even with the joint enterprises, big projects need big outfits—and the small comers aren't getting in yet.

The tendency among the big companies is to go after only the bigger jobs—many set a floor of \$1-million for the jobs they'll bid on—although a few will even bid on two-block paving contracts, on the theory that competing against the fast-moving, limber small outfits helps keep their own muscles flexed.

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• **Pioneers**—Most of the really big concerns are old-timers, some dating back to the 1880s; and almost all started out as fairly limited specialists.

Characteristically, most big ones make a mark, not simply by doing a competent job, but by doing something first. Perini made his in the '30s on the Boston-Worcester Turnpike when he developed a new technique for high-speed paving, a mile of highway in 11½ hours. Austin Co. pioneered structural welding, was probably the first contractor to offer a completely packaged "turn-key" industrial plant. Dwight Winkelman got his real start by creating an island off the Florida coast. George A. Fuller Co. built the first steel-framed skyscraper, Chicago's Tacoma Building, in 1885. Turner Construction was an early expert in reinforced concrete industrial buildings.

V. The Impetus

In many cases, it was the combination of depression and war that created the highly diversified giants that exist today. Although most are still best known for a specialty, few limit themselves to a single type of construction any more. Any of the big ones will build airports, aqueducts, apartment houses, bridges, dams, highways, hotels, industrial plants, tunnels, office buildings, pipelines, refineries, waterfront facilities, drydocks, television stations, and transmission lines.

The progression was in most cases logical. Macco, for instance, started as a rigger of oil derricks. That led to oil drilling "packages," including site work, roads, and equipment. "Package" deals led to both waterfront work, for ocean drilling, to piers. Road work led to irrigation systems, then to dams.

Others have widened their experience out of necessity. When Peter Kiewit became boss of his family company in 1930, its experience was largely in small buildings, which had come to a dead stop then. Kiewit anticipated the tide of public works as a relief measure, jumped into roads, and as more New Deal money was pumped out, into



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heavy construction. By 1938, his company was big enough to take a \$6-million contract—and during the war, picked up some \$300-million worth of assorted war projects.

• **War Boom—**Wartime was the impetus for many contractors. Rooney of Miami is fairly typical. He still has a fairly small operation—about \$22-million this year. Caught in Miami by the crash in 1929, he worked in filling stations, worked up to leasing filling stations and a small truck fleet, started building a few houses in 1934. He got into general construction during the war by bidding in the small off-beat structures—cold storage buildings, bomb storage buildings—that the bigger companies didn't want to bother with. After the war, that experience took him into warehouses, terminals, commercial buildings, and department stores.

• **Diversifying—**But normal progression is leading many contracting outfits into other fields. Macco's pier business needed lumber—so Macco owns a thriving lumber subsidiary on the side. The Brown brothers of Texas, Brown & Root are substantial owners of oil, pipelines, and ranches, (BW—May 25 '57, p90). Kiewit went into strip mining in Wyoming, Minnesota, and Michigan, to keep heavy equipment occupied during off seasons. Utah Construction is in mining big. It started by handling a coal operation for Pittsburgh Consolidated Coal Co., since has picked up its own open pit iron and coal mines, is one of the top independent ore producers in the West, is developing deposits in Peru and British Columbia, working copper in Arizona, uranium in Wyoming. It's now building its own fleet of ore carriers to move its ores, and owns important blocks of stock in 37 other companies, including construction materials, mining, and shipping.

• **Decline of Politicians—**As the industry has changed, so have some of the requirements. In the political histories of our cities particularly, the contractor has been closely tied to City Hall, or the state legislature. While small contractors may follow this line to some extent, most builders today prefer private work—which is likely to run bigger than most governments dish out.

"We want to avoid that 'P. I.' (political influence) on our listing in Washington," declares a big Pennsylvania contractor. "You take too big a chance playing politics. The Washington bureaucrats hate you—sight unseen—when they spot that 'P. I.' on your card."

But, says a big Western contractor, "If a big job comes up in your area, you can bet your boots every big outfit in the country will be bidding on it." END

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Pension Funds Need Some Ground Rules

Pension funds, like Topsy, just grew—and are still growing. Today they represent an immense source of financial power, yet they are not only free of regulation but enjoy a special tax-exempt status.

Because they are not subject to regulation, there is no way of telling just how big are the resources pension funds control. But there is no question that they are huge. For example, a report by New York State's Banking Dept. shows that the assets of funds held within the state amount to \$8.4-billion—an increase of \$1-billion in the past 12 months.

New York's banks, with their position in the nation's financial center, may have more funds than other states, but they are by no means the only repository of these unregulated resources. From the standpoint of both their present size and potential growth, pension funds are a national rather than a local problem.

This is especially true since the revelations of abuse of some funds. As long as they go unregulated, attempts to use them improperly are inevitable. But it is doubtful that strict regulation by a state will act as a safeguard, because unless all states follow suit, pension funds will find a home where requirements are least onerous.

The establishment of pension funds represents only one aspect of the changing character of the U. S. financial system. Other financial institutions—savings and loan associations, life insurance companies, sales finance companies—have had similar growth patterns. They, too, are free from the monetary controls exercised by the Federal Reserve. But as far as regulations and administration are concerned, these groups are living in a goldfish bowl. Not so the pension funds.

It is merely common sense to suggest that ground rules must be set up for the creation and management of pension funds. Yet these rules should not be initiated peremptorily as a reaction to a few abuses. Instead, we need a dispassionate study of the role played by pension funds in the economy. Only then can we draw up the kind of reasonable—and workable—regulations that are needed.

Same Old Story

Whatever else you may say about Russia's Nikita Khrushchev, you can't call him taciturn. Few historical figures have managed to keep up such a line of patter while they rode the tiger of power.

Last week, the voluble Khrushchev was in Prague, tossing off bon mots between mouthfuls of Czech sausage and slugs of slivovitz. One of his remarks had a certain charm to it. "It is not bad," he opined, "if in improving the theory of Marx one throws in also a piece of bacon and a piece of butter."

But none of this realism showed in his comments on international affairs. On the subject of disarmament, for instance, he dragged out one of the hoariest of all the Marxist clichés: Disarmament negotiations are going slowly because "the big monopolies in the U. S. fear drastic profit losses."

Now, no one expects Khrushchev to start throwing bouquets to U. S. business. But it is a little discouraging to hear him repeating catch phrases that were worn threadbare two generations ago.

Of course arms contracts yield a profit. In an economic system that makes profit its mainspring, they have to. But the fact is that arms contracts in the U. S. today carry the lowest profit margin of any business. Many big companies don't like them; they can do better selling to the booming civilian market. Taxes and renegotiation are carefully designed to pull the take on government business down to the minimum needed to keep the contractors healthy.

Disarmament negotiations are going slowly because the Russians want the U. S. to do all the disarming. They will continue to go slowly until the Russians are ready to substitute real negotiations for the line of stale rhetoric that Khrushchev's conversation contains in such abundance.

Expensive Casualty

The announcement that the Air Force has abandoned its program for the Navaho intercontinental guided missile—on which it has already spent \$625-million and 10 years of effort—may seem at first blush a flagrant example of government waste.

But such a hasty judgment would be wrong on at least two counts.

First, the money spent on the Navaho is not a complete loss. Knowledge gained from its development is already being put to use in designing better rocket engines for newer missiles now being built.

Second, we must keep in mind the fact that we are engaged in a life and death missile development race with Russia. For missiles are fast becoming the key to our defense capabilities.

Missile development is a highly expensive business. To develop the best missiles possible and to develop them quickly, the Defense Dept. has followed the sensible course of encouraging designers and builders to follow competitive, but different approaches. A logical outcome of such a course is that new and better systems are constantly being developed, and supplanting older systems. And, when parallel systems are developed, as in the case of the Navaho and Snark, usually one must be dropped in light of budgetary and production considerations. In the race of developing superior missile weapons, we must be prepared for such expensive casualties.



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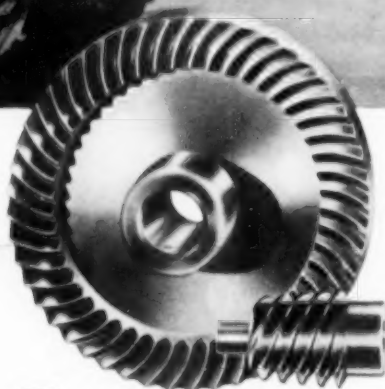
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